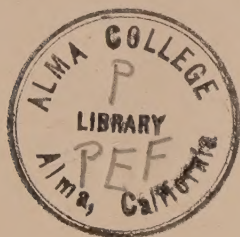


PALESTINE EXPLORATION QUARTERLY

Embodying the *Quarterly Statement* of the Palestine
Exploration Fund and the *Bulletin* of the British School
of Archaeology in Jerusalem

1944 & 1945



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Palestine Exploration Fund

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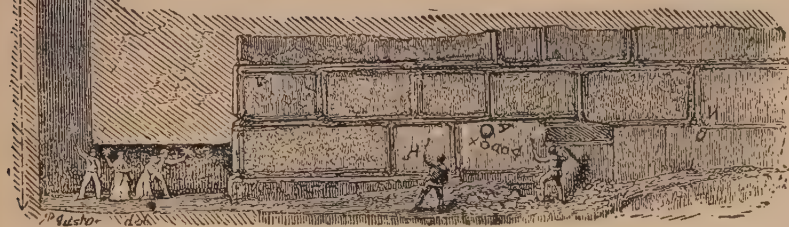
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THE PALESTINE EXPLORATION FUND

NOTES AND NEWS

IN our last issue we recorded the important gathering of archæologists in London to consider the future of archæology after the war, a welcome sign that the end was in sight. Now comes the further news of a similar, though necessarily smaller, gathering of archæologists in Jerusalem in May, 1943, to prepare for an international conference in Jerusalem in July of the same year. American, British, French, Jewish, Moslem, and Egyptian representatives of Near Eastern archæology met and discussed and laid down the framework of a plan for international co-operation after the war in the Near Eastern field. The project was considered of the formation of a Near Eastern Council, and a temporary Executive Committee was elected to carry out the resolutions of the Conference. Some very valuable suggestions were put forward, especially in relation to the training of students in field archæology, an activity in which the University of London, through the Institute of Archæology, had already before the war begun to take a lively interest. The plan for a Near Eastern Council, if it materializes, should prove of great value in directing, co-ordinating, and stimulating archæological activities in the Near East after the war. It may be of interest to mention the names of those who were elected to serve on the temporary Executive Committee. They were Dr. Nelson Glueck, Chairman ; Professor Frank Brown, Professor K. A. C. Creswell, Mr. P. Dikaios, M. M. Dunand, Mr. J. H. Iliffe, Professor L. A. Mayer, and R. P. René de Vaux, O.P.

It is interesting to find that in the midst of the paramount duties of bringing the war to a victorious conclusion scholars have still managed to carry on the study of the documents from Ras Shamra which were engaging the attention of so

many experts before the war. In the latest number of the *BASOR*, which still keeps up its high standard of scholarship and interest, Professor Albright has an important article on some very difficult and obscure passages in one of the earlier texts. There is also news of two fresh contributions to the elucidation of these baffling documents. Professor C. H. Gordon has brought out a little book entitled *The Loves and Wars of Baal and Anat*; Professor H. L. Ginsberg has published in the *Journal of Biblical Literature* a valuable article entitled "The Ugaritic Texts and Textual Criticism." Moreover, Professor Virolleaud has continued his work of editing the still unpublished texts, and has published in *Syria*, XXII, a further tablet of the Keret Epic, while Dr. Ivan Engnell, whose important book *Studies in Divine Kingship in the Ancient Near East* was mentioned in our last issue, has also published an article on the same tablet in *Religion och Bibel*.

In the September issue of the *Biblical Archaeologist*, 1943, there is a very interesting article on Sodom and Gomorrah, dealing with the Biblical account of the destruction of the Cities of the Plain. It appears from the present form of the story that it rests upon an ancient Canaanite tradition of the destruction of mankind by a rain of sulphur and fire, since the implication of Gen. XIX, 30-31 is that Lot and his daughters were the sole survivors of the catastrophe. Geological evidence shows that the destruction cannot have been caused by volcanic activity, but the same evidence shows the probability of petroleum deposits in the Dead Sea district, and it is significant that the Anglo-Persian Oil Company has recently been investigating the site. Hence it is suggested that the destruction of the Cities of the Plain may have been caused by an earthquake and the consequent ignition of gases and seepages of asphalt emanating from the region, through lightning or the scattering of fires from hearths. The same issue contains a useful exposure of the absurdities involved in popular theories about the so-called "Lost Tribes," and in the curious phenomenon known as "British-Israel."

Another ancient tradition relating to the destruction of

mankind, the Hebrew story of the Flood, resting, as is now well known, upon the Sumerian and Babylonian Deluge stories, is the subject of an interesting pamphlet entitled *Who Perished in the Flood*, published by the Catholic Truth Society. It is interesting because it shows how far the Roman Catholic Church allows its scholars to deal critically with the Old Testament. The question raised is the universality of the destruction of human and animal life in the Flood, and the tradition of the Church has accepted this universality. The author of the pamphlet, Father Sutcliffe, S.J., begins by quoting from a letter of Pope Pius X, in which the principle is laid down that it is "right and proper to disapprove the attitude of those who dare not in any matter break with traditional Scriptural exegesis, even when without prejudice to the Faith the wise progress of studies demands it." With this sanction the author goes on to examine the question of the universality of the Flood, and arrives at the conclusion that the destruction of human and animal life described in the Biblical narrative was limited to the region envisaged by the narrator, that is, the Mesopotamian area. It is significant and welcome to hear from a Catholic commentator such words as the following: "It may be doubted whether anyone to-day is prepared to pay for consistency the heroic price of bringing to the Ark specimens of all the species from the different zoological zones of the world, maintaining them in health for a year in the one climate and that under the artificial conditions of life on board the Ark and afterwards of restoring them all to their proper native habitats."

The American Oriental Society has published a useful monograph by Mr. J. B. Pritchard entitled *Palestinian Figurines in Relation to Certain Goddesses Known Through Literature*. The monograph contains a descriptive catalogue of 294 examples of such figurines, with a discussion of how far the figurines may be identified with any of a group of goddesses whose names are known to us either from Biblical sources or from ancient documents. The goddesses in question are Asherah, Ashtart (Heb. Ashtoreth), and Anath (or Anat), of whom the last-named plays such an important part in the Ras Shamra literature. Mr. Pritchard thus sums up the

result of his enquiry : " From the foregoing we are forced to conclude that there is no direct evidence connecting the nude female figure represented upon the plaques and figurines of Palestine with any of the prominent goddesses. The meaning of the figure may have been so well understood by those who made and used the figurines that contemporary writers did not find it necessary to refer to it." The monograph will be a useful aid to students of Palestinian archæology.

Another contribution to the constantly recurring question of the Aramaic origin of our Gospels appears in the *Harvard Theological Review* for April, 1943, in the form of an article by Sherman E. Johnson on " The Biblical Quotations in Matthew." In it the author reviews Professor Torrey's new theory with regard to the Old Testament quotations in Matthew. It has been accepted that most of these quotations were made from the Septuagint, an assumption which Dr. Torrey entirely rejects. He holds that the original Matthew was in Aramaic, and that its principal source was the originally Aramaic Mark, but that its Biblical quotations were in the Hebrew of the O.T. If, at many points, quotations in the Greek Mt. agree with the Greek Mark, it is only because the translator of Mt. made use of the latter. Mr. Sherman carefully analyses Dr. Torrey's treatment of the quotations and, while acknowledging the great value of Torrey's researches, finds himself unable to accept his view on this point. The author's summary is worth quoting : " This redactorial work (i.e. Matthew's) is done in Greek by a man who is thoroughly at home in the Greek language and is also well acquainted with the Hebrew Bible, which he uses from memory, like a preacher, stringing together proof-texts and making clever, pragmatic use of them. Probably he writes his gospel in a bilingual church containing many Jews, somewhere in Syria, but not in the apostolic age, for Mt. is in germ already a Catholic gospel."

A further discussion of this question is to be found in the *Journal of Near Eastern Studies* for July, 1943, in an article by Dr. S. I. Feigin entitled " The Original Language of the

Gospels." It is mainly occupied in proving from Talmudical sources the existence of Christian literature in Palestine during the first two centuries of the Christian era. The Talmudic material is certainly relevant, although its interpretation is often doubtful, but it cannot be said to lend any weighty support to the view that our gospels were originally written in Aramaic. Even if Professor Goodspeed's argument from the alleged non-existence of Jewish or Christian literature in Palestine during the period in question were weakened or disproved, there would still remain two weighty objections to the Aramaic theory ; first, the strong probability that the gospels came into existence to meet the need of Greek-speaking Christian communities outside Palestine ; second, the fact that Matthew and Luke, in the form in which we have them, have used a Greek written source for the main part of their narrative of the life of Jesus.

Of special interest to students of Palestinian archæology, and in particular to those who are interested in the archæology of the Temple in Jerusalem, will be Professor Waterman's article in the *Journal of Near Eastern Studies* for October, 1943, under the title of "The Damaged 'Blueprints' of the Temple of Solomon." The term "blueprints" in his title refers, as he explains, to the descriptions of the Temple in 1 Kings vi and Ezekiel xli. The purpose of the article is to prove that the storied chambers attached to the building were treasure-chambers forming an integral part of the building and reached from within by a series of internal staircases. It goes on to show that the original purpose of the building was that of a royal treasury, and that the religious use of the building, together with the *debir*, or inner sanctuary, were later developments. He also holds that the cherubim were originally the guardian-genii of the treasury, and in appearance and position closely resembling the theriomorphic colossi guarding the entrance to Assyrian or Babylonian palaces or temples. The contents of the article should prove provocative to students of the archæology of the Temple, and will no doubt draw forth replies from other scholars.

We have received a copy of the first issue of a new Annual

produced by the Museum of Jewish Antiquities of the Hebrew University at Jerusalem. It is edited by Professor Sukenik, and is entitled *Kedem*. It is a large quarto of 105 pp., excellently produced and printed, with 13 full-page plates and numerous illustrations in the text. It is in Hebrew, with an English summary of its contents. The first issue contains accounts of recent excavational work in Palestine, notes on Museum articles, miscellaneous studies on various subjects of archæological interest, including articles on "The Meaning of the Le-Melekh Inscriptions," by Professor Sukenik, "Notes on the Sujin Pact," by J. N. Epstein, and an article on "The Gods of the Jews of Elephantine," by Professor Cassuto. Clearly, there is good and varied fare provided, and one can only regret that it will not be able to reach a larger public owing to the inevitable limitations of a production in unpointed Hebrew. We cordially wish the new venture which has made such an auspicious start every success.

HANDICRAFTS IN PALESTINE

BY GRACE M. CROWFOOT

JERUSALEM HAMMOCK CRADLES AND HEBRON RUGS

In Jerusalem district many visitors must have noticed the hammock cradle (*hedel* pl. *hdul*) in which women carry their babies on their backs ; one of these, spread out, is shown on Plate II, 4. It is a woollen strip some 2 ft. 6 in. $\times$ 2 ft. 3 in., exclusive of fringes, in warp-face weave, the weft being entirely concealed ; the groundwork is usually red with stripes and checks in black, purple, brown, orange and often a dash of other bright colours as well, green, yellow or pink ; there are fringes at both ends and tassels added at the sides. At each corner are plaited woollen ropes which, tied together, form a loop passed over the head to support the weight of the baby on the back. The pressure on the forehead is painful to those unaccustomed to it, and sometimes it causes sores but most women make light of the burden. They often carry a basket on the head as well, as in Plate II, 1, and still have their hands free to twirl a spindle as they walk to market of a morning. With their white veils flowing and their red tassels dangling they are delightful to behold as the folk song says :

How lovely are the tassels of the cradles
Coming from the west in companies,
Swinging from the backs of the young women.

As well as being used to carry baby about, the hammocks are often hung in the house or slung outside on the courtyard wall or on a tree (Plate II, 3). The latter is said to be alluded to in the verse :

My swing is on the road ;
You that pass by do not return ;
O sleeping one, wake not.

Many such lullabies are sung while rocking the baby to sleep either in the hammock or the wooden cradle ; here is one from Artas :

1

O pigeon of the rivers,
Give sleep to both eyes.
O pigeon of the wilderness,
Give sleep in the cradle.
O pigeon of the valley,
Give sleep to my son.

2

O bird, O pigeon,
My darling wants to sleep.
And I'll slay the pigeon for thee,
O pigeon, do not fear,
I but laugh the child to sleep.

I once had the good fortune to see many babies rocking if not precisely on the tree tops yet from their branches. It was on a morning when the train was due to arrive at Jerusalem bearing men returning from the pilgrimage that I noticed a crowd of women sitting waiting in a little olive grove near by. The trees were gay with swinging hammocks, all the babies were good, hushed in sleep ; the women, swathed in their veils, were grouped like statues. It was an exquisite picture of rest and expectation. As I watched in came the train and each woman rushed for her infant and with loud trills of joy the company moved down to the gate.

After seeing these hammocks in use so commonly I enquired about the making and I was told that the best were to be obtained from Abu Dis. So Miss Baldensperger (known affectionately in village life as Sitt Luise) and I went over to visit a famous weaver and dyer there, Haj Miriam Sabbagh, who had a loom set up permanently in a little annexe to her house. With surprise and delight I saw that it was of the same simple type as that used by the Beduins. How well I knew that loom ! I had watched weaving on it many a time in Egypt and the Sudan. I noted the customary four posts

planted in the ground, the warp and breast beams lashed behind them, the rod heddle and shed rod, the heavy stone supports for the heddle rod. All these essential parts are shown in the loom on Fig. 1. At Abu Dis, however, instead of the warp being made directly on both beams, at the warp

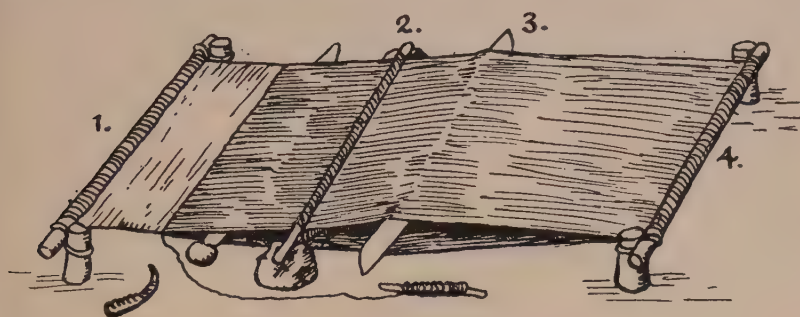


FIG. 1. THE BEDUIN LOOM

1. BREAST BEAM. 2. ROD HEDDLE, SUPPORTED ON STONES. 3. SHED ROD.
4. WARP BEAM. THE SWORD BEATER IS SEEN IN THE SHED ; AT THE SIDE OF THE LOOM ARE THE SPOOL OF WEFT AND THE GAZELLE HORN.

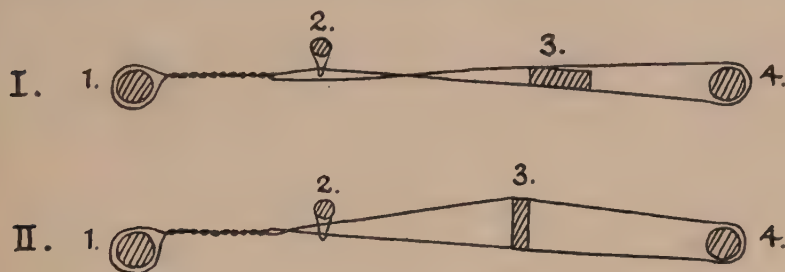


FIG. 2. SHEDDING DIAGRAM OF THE BEDUIN LOOM.

NOS. 1-4 AS IN FIG. 1.)

I. THE HEDDLE IS FIXED AND GIVES THE SHED.

II. THE SHED ROD IS TURNED ON EDGE TO FORCE THE SHED ROD THREADS ABOVE THE HEDDLE THREADS AND GIVE THE COUNTERSHED.

beam end it was passed over a rod tied to the beam, thus giving better control of tension ; this also is a common practice among Beduins. The weaving tools again were similar—a stick spool of weft, a sword beater and a pin beater. Slight differences observed were that instead of having the rounded handle usual in Egypt and Mesopotamia and seen

on Fig. 1, the sword was here a blade tapering at both ends, and instead of the gazelle horn or wooden pin a metal hook as substitute, six inches long, lay by the loom, made so we were told, for village weavers by a blacksmith in Jerusalem.

As Haj Miriam sat down to weave I followed her movements with familiarity, I had woven on that loom myself and knew all its tricks. The heddle rod being permanently raised gives the shed and to obtain the countershed the shed rod is turned on edge thus forcing the shed rod threads above in their turn (see the shedding diagram on Fig. 2). So far theory. In practice the woollen warp threads cling to each other and to get the sheds the weaver often has to bend over the loom, either to lift the shed rod threads higher with her hand or to beat them back into place. Haj Miriam dealt well and truly with her warp and did not scant the beating of the weft. The sword beater, that dual purpose tool, was used both to enlarge the shed for the passage of the weft and to beat it up and the metal "horn" plucked it well home.

The selvedge was made in a way which I had previously seen only in the Northern Sudan. Four threads (or multiples of four) in two colours, are fastened to the warp beam on either side of the warp and are brought down and tied loosely to the breast beam. At the end of each pick of the weft these free warps are twined and the weft is passed between them thus forming a chevron pattern down each side of the web.

We spent the afternoon watching the quick deft movements of the weaver, admiring especially her ability to keep a straight edge without reed or tenter, and took our leave with congratulations and thanks. But I went away longing to see if the village ways of warping were also as those of the desert; as usual in craft work I wanted to see it from beginning to end. "And so you shall" said my companion, "we will get a loom set up in Artas and you shall see the work with your own eyes '*min auwal lil akher*'".

There was no such craftswoman as Haj Miriam in Artas, in fact, it appeared to be the practice there, when a woman had spun her wool to invite a woman of the Ta'amre, their semi-Beduin neighbours, to weave it, which she would do for three piastres the *dira* and her food, a bargain not so cheap as it sounded, our informant said, because the Ta'amriya would

probably bring her children and her grandchildren and other members of her family who would all expect to be fed too. At length one of Sitt Luise's helpers came to the rescue, old Sitt Hamdiya, who had often made cradles in her youth and would gladly try again if I could produce some wool. By good luck I had bought a big bunch of skeins of the right sort at the first Jerusalem craft show, handspun and doubled for strength, all dyed in the gayest of reds and brown and orange.

So, one morning, in fair weather with camera and notebook, I set out for the welcoming village and all day Sitt Luise and I kept "open house" in her little terraced garden. First of all a bit of ground had to be cleared of wild mallows and grass and smoothed by many helping hands. Then the weaver arrived with armfuls of pegs and sticks. Being out of practice she had thought it well to ask a Ta'amriya after all to help with the warping, the Beduin were so much better at it than the Fellahin, and a child was sent off to tell this expert that the loom would soon be ready. Next, the loom area was roughly marked out. One of the assistants then measured round her head with a bit of wool; this, she said, was the "woman's *dira*"¹ and the cradle should measure three of these *dira* in length and three *shibr* in breadth. This was confirmed to me by the measurements of an old cradle and I was also shown that the saddlebag should measure twelve *shibr*. When the ground was measured up to her satisfaction the weaver knocked in the four corner pegs and lashed the two thickest rods behind them for breast and warp beams. Two other lighter rods were then laid alongside each beam inside the pegs. Now came the Ta'amre woman and a friend of ours, Sitt Latifa; they placed themselves in position, the expert at the warp beam, Sitt Latifa at the side of the warp, and the weaver, Hamdiya, at the breast beam. With all solemnity she recited a prayer to the Merciful and Compassionate, a young voice in the crowd cried "A blessing on the craft!" and in sudden silence after all the chatter the wool was passed from beam to beam.

In the Sudan and Upper Egypt the warp is sometimes laid directly on the beams as in Fig. 1, but here, as often in

¹ The *dira*, or cubit, is of course usually measured from elbow to fingertip, the *shibr*, or palm, from thumb tip to the tip of the little finger.

Beduin warping, the warp was passed over the two slighter rods and these were lashed to the beam as warping went on. Loops of wool from the balls were slipped over the free ends of the rods and Sitt Latifa's function was to control the colours, changing the balls when required for different stripes. For check pattern she took two balls of different colours as seen in the photograph (Plate II, 2). The wool was merely wrapped round and round the rods instead of being passed in a figure of eight as in the Sudan, the rod heddle with its continuous looped "leashes" was made and the shed rod thrust through to make the crossing as the warping proceeded; two large stones supported the heddle rod. The expert saw to it that the weaver entered the warps in the right order; when she lashed the rod to the warp beam in between the loops of warp I noticed with pleasure how she gripped the cord with her toes. The warp being all on, a thread was laced through the heddle loops on top of the heddle rod to keep them the same length.

Now came the weaving and at once a happy flow of gossip ran round the assembly, it was obvious that weaving did not present the anxiety of warping; there was no pattern to think about because the simple stripes and checks came up automatically, except for a row of twined weave put in as a chevron of two colours above the fringe to be. All went on as at Abu Dis except that the weaver when making a shed lifted first half the threads from right to centre and then the other half from left to centre instead of going straight across, but this was probably only an individual trick. Work went on all day with intervals for rest and refreshment and with evening came the end of the weaving and warp and weft were fast bound to each other. "*Lahme fi satwe*" "the weft's in the warp" as someone murmured, an expression often used also proverbially for a good marriage, a firm union, such as one between cousins, not lightly to be dissolved. The loom was then dismantled, the fringes cut and the web was handed round to suffer a fire of criticism. The weaver had missed a thread here, she hadn't beaten up enough there, and it was a bit on the small side, but that was partly my fault for not bringing more wool. "It will only hold a very small baby" said the one who returned my cradle, condoling with me. They must have thought me simple

to wear so happy a smile, but I was far away from the critics in a private heaven, I had desired to understand the way of a craft and, as my friend promised, I had seen it with my own eyes.

Hebron Rugs. I have no such ecstasies to record over my studies of Hebron rugs, only a sting of regret that I never found time and opportunity to see that also "from beginning to end." But certainly much in the description of the weaving

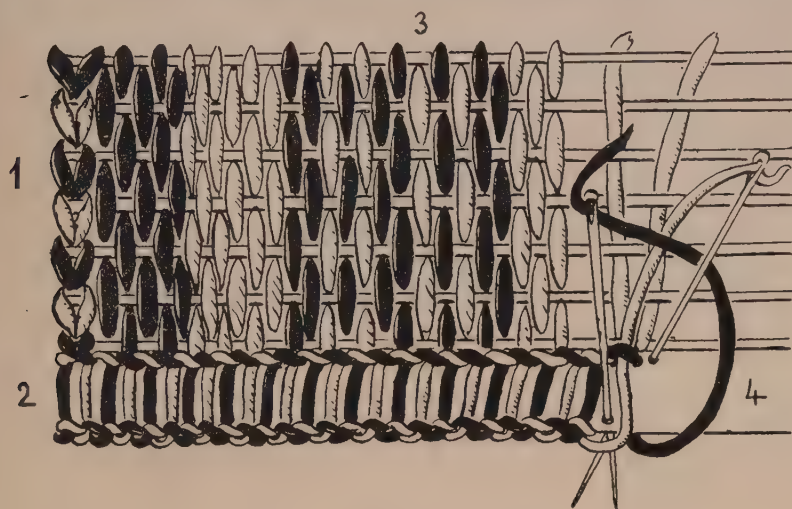


FIG. 3. CORNER OF HEBRON RUG

1. SELVEDGE. 2. BUTTONHOLING. 3. CHECK PATTERN. 4. METHOD OF WORKING BUTTONHOLING. (THE RUG EDGE IS LEFT BLANK FOR CLARITY)

of the hammock holds good also for these rugs; the loom is the same, only larger (see Plate I), the tools are similar and the texture is the same as that of the hammock, a warp-faced weave, the weft being entirely concealed. The favourite arrangement is a groundwork of madder red, with stripes and checks in black, brown and white, more rarely green. They are generally woven in strips of varying size, usually about 2 ft. 3 in. $\times$ 7 ft., and sewn together with the usual Arab joining stitch. This is worked in blocks of alternating colours like the stitch called Woven Bar seen in Hardanger embroidery.¹ As with the hammocks a row or two of twined

¹ Mary Thomas: *Dictionary of Embroidery Stitches*, Fig. 12.

chevron weave is usually put across the web for decoration, and the selvedges have the same chevron finish. Occasionally fringes are made but more often the ends are cut, turned in and buttonholed in two colours (see Fig. 3) in the same way as the mouth of the Beduin bag described in the previous article (PEQ., July-October, 1943. Plate III, Fig. 3 and page 83). Another method of finishing off the end is akin to that seen in some kinds of mat-making: when the web is withdrawn from the rod at the breast beam the warp loops are often very short, owing to the pressure of the weft, and then, instead of pulling out wefts to make a fringe the weaver passes groups of these loops over each other, thus giving a neat chain-like finish. I have seen rugs in which the end of one strip was treated in this way while the others were buttonholed, but more careful weavers usually finish all ends alike. Whether buttonholed or overlooped, the ends have always a handsome tassel at each corner fastened by cords in ornamental plaiting, most often in a square sennit of four strands in two colours.

The weavers in this district, like the one at Abu Dis, seem independent of Beduin assistance and their craft indeed is quite an industry; these pleasant durable and inexpensive rugs are in use in many houses in Jerusalem and other parts of Palestine.

Comparisons. There is no doubt that the ground loom used by Palestinian village women is identical with the Beduin loom. Dalman, whose book on Spinning and Weaving in Palestine was published after I had made my studies, also observes this.¹ Not only is the loom similar but on the desert edge, as we have seen, the Beduin source is freely acknowledged. Some slight differences in the tools used have already been noted; others observed in technique are more interesting. To begin with the spinning. The Fellahin women like those of the Beduin spin both sheep's wool and goat's hair on the handspindle; men also are seen spinning in the villages, though usually not till they are very old and then with the cross sticks rather than the spindle.² The Fellahin method is the drop and spin, with the spindle whorl uppermost as in

¹ G. Dalman, *Arbeit und Sitte in Palästina*, Vol. V, p. 95.

² Dalman, *op. cit.*, Pl. IX.

Egypt and as there too with a good roll on the thigh when a hard spun thread is needed ; the chief peculiarity is the use of a very long prepared rove, one sometimes sees a spinner enveloped in clouds of wool, the rove being draped over shoulder and arm and flowing out from them in the breeze.¹ The Beduin also use drop and spin, but from a smaller roll of wool and with a shorter spin ; they spin goat's hair also in their own peculiar way, by rotation in the hand, as women do in the Sudan,² but with the rotation in the opposite direction,³ All double their wool on a heavier spindle in much the same way. The Beduin excel in the production of fine even yarn and consequently their better quality rugs and tent cloth quite outclass any village weave. Of course, rugs for town use and hammocks, though they should be strong and durable, never have to stand the wear and tear of nomad life and do not need to be waterproof as a tent does ; the difference of the product consequently is not so much "better" or "worse," for each is well adapted for its own purpose.

Where the difference becomes remarkable is on the artistic side. In pattern work the Beduin are far ahead of the Fellahin. The latter have the rudiments of pattern in the warp, i.e. stripes and checks, and of those in the weft, the rows of twined chevron weave thrown across the warp, but they never develop either any further. Indeed I do not know whether any among them understand how to get a more elaborate warp pattern than the check. But among the Beduin both warp and weft patterns are very highly developed. As regards colour I cannot say that I have noticed much taste in choice of colour or skill in dyeing in either group as far as Palestine and Trans-Jordan are concerned. In Hebron district there is still some home dyeing, and vegetable dyes are used but most spinners whom I met seemed to take their wool to the nearest dyeworks in the town or buy a packet in the market for use at home. I have a painful memory as I write

¹ Dalman, *op. cit.*, Pl. VIII.

² G. M. Crowfoot, *Methods of Handspinning*, Bankfield Museum Notes, No. 12, p. 10.

³ Both among Fellahin and Beduin in Palestine and Trans-Jordan as far as I have observed the wool is Z spun, the roll being from knee to thigh, while in Egypt and the Sudan it is S spun, the roll being from thigh to knee.

of a Fellaha at Jerash who after finishing a really charming rug in natural greys and near whites dipped not only the fringes but several inches at both ends in a bath of strong magenta dye for my pleasure ! They do love colours, but as bright as possible and as many as possible, and are quite at the mercy of the European market. Where Beduin tent pieces often please the eye is in the absence of dyes and the use of the natural browns, blacks, greys and white ; when they also go in for colours as in their rug work the results are often similar to the village products in garishness. Legend has it that they once used many vegetable dyes including indigo grown in the Ghor and this may well be so for the traditional ways of dyeing were still followed in recent years among the Beduin of the Western desert of Egypt ; there one could find craftswomen who showed mastery of both pattern and colour work.



WOMEN WEAVING A CARPET AT DURREH

(Photograph by Mrs. Henschel Simon)



1



2



3



4

1. WOMAN CARRYING BABY IN HAMMOCK, SILWAN. 2. WEAVING HAMMOCK CRADLE, ARTAS.
3. CRADLE HUNG ON OLIVE TREE, JERUSALEM. 4. HAMMOCK CRADLE, FROM ABU DIS. (THE
WARP IS HORIZONTAL)

SHORT HISTORY OF PALESTINIAN EXCAVATION

BY M. E. KIRK

SEVERAL books have been written on the history of excavation in Palestine, notably those by R. A. S. Macalister, W. F. Albright and the Palestine Exploration Fund, but until recent publications by the Americans, there were none which were entirely up to date. The earliest authentic record of active interest in the recovery of ancient sites in Palestine occurs in A.D. 326, when, with the help of Macarius, Bishop of Aelia, the Byzantine Empress Helena conducted some excavations in Jerusalem in the pious hope of finding the veritable site of the Holy Sepulchre and other Holy Places. But apart from that long-past effort, in which it was alleged that the true Cross and the nails were recovered, no known excavations occurred, other than indefatigable plundering, until the middle of last century. A fortunate thing when one considers the incalculable damage and loss of evidence that inexpert excavation can, and does, still sometimes do. In its early form it consisted in merely digging up objects of value without any attempt to record their provenance, or the things associated with them, or even the date of the stratification in which they lay. Since it often happens that the main information is found, not in the object itself but in its associations, it can be realized how much irreparable damage was done by the earnest but inexperienced efforts of pioneer excavators.

However, though no excavations in early times are recorded, it does not mean that no interest was taken in Palestine. Being as it is the religious centre of Judaism and Christianity it has always, so to speak, been in the public gaze. In the middle ages, pilgrimages to Palestine were often set as penances, while countless people were drawn there by an intense desire to see for themselves the places connected with the great events recorded in the Bible. Of these latter many published their experiences when they returned, and

the MSS. have survived. But in those days travel was long and hazardous and full of incident, tours round the holy places were only permitted by the hostile Moslem authorities under rigid guidance ; no independent researches were encouraged, and to question the authenticity of the information given out by the monastic guides would have been impious. The consequence was that what they heard had to be retained, more or less hazily, in their heads until their return, and the resulting accounts are interesting but unhelpful to the modern archaeologist. Moreover since only the religious aspect of Palestine was considered nothing else was recorded. Of all the numerous early books published the most valuable is that written by Felix Fabri, and printed in 1556, some seventy years after his visit. Several MSS. in both German and Latin still exist, and the Palestine Pilgrims' Texts Society has issued an English translation.

Down to the end of the seventeenth century various books appeared, mainly of religious interest. If read in chronological order, the slow advance of civilization can be traced ; the risks of travel lessening, and foreign travellers coming under the protection of powerful resident representatives of their respective countries. This improvement resulted in a closer study of the country and less inaccuracy of detail. George Sandys in 1610, Douldan 1652, Morrison 1697 (the two latter French), all published books. Botanists such as Belon du Mans, 1553, and Rauwolf, 1582, traversed Palestine and brought back information not only on their own subject but on curious manners and customs. Antiquities now began to interest men of scholarly tastes everywhere, and early in the seventeenth century a tendency to copy inscriptions, measure and plan buildings, and explore and describe tombs began. Among the travels recorded by the most eminent of these early archaeologists are Maundrell, 1697, Pococke, 1743, Shaw, 1757, Seetzen, 1806 (discoverer of the ruins of Jerash and Amman), Burckhardt 1810-12 (discoverer of Petra), Buckingham, 1821, and Irby and Mangles, 1823.

By 1714 so much had been written that Hadrian Reland made a laborious classified topographical compilation of all the available information in the literature down to his day, which is still valuable as a book of reference. But 1824 may

be said to open the era of excavation proper, though most of the knowledge of the ancient history and topography of Palestine was still based mainly on the Old Testament. Egypt and the Euphrates Valley had begun to be systematically studied, and the key to their mysterious writings discovered. No classification of the antiquities of the Near East was yet possible, indeed few things were registered as worth serious attention. Only the most finished specimens of pottery were kept, the outstanding importance of even the roughest pottery for dating purposes being then undreamt of. Indeed it was not realized until nearly one hundred years later, when the late Sir Flinders Petrie established archaeological research on a really scientific foundation, with the study of all pottery as its first law. However, the value of inscriptions had been recognized and the general development of civilization everywhere through stone, bronze and iron ages had begun to be dimly understood. In Palestine the sacred gospel sites were eagerly sought, identification often being on the flimsiest evidence; the accumulated debris covering ancient cities had here and there been noted, but its true import was not realized.

Then came Edward Robinson, teacher of Hebrew in the Theological Seminary of Andover, Mass. He had always dreamed of travel in Palestine, and for years studied all the literature he could get hold of, and went to Germany to study under the masters of the day. Then in 1838, he went out and for two months wandered through the land, Bible in hand, accumulating a large amount of information. In 1852 he went again. Though not the first to question the authenticity of the Holy Sepulchre site, he was the first to bring the doubt into public view. Titus Tobler carried on Robinson's studies in Jerusalem, and then Victor Guérin began single-handed the task of mapping Palestine. His map was published in 1863, together with a seven-volume monograph. It was not the first map, however, because in 1858 C. W. M. Van de Velde had published an important work of cartography which remained the best available map until the publication of the Ordnance Survey under the auspices of the Palestine Exploration Fund.

In 1850 De Saulcy made a tour of Palestine and decided he had discovered the sites of Sodom and Gomorrah—actually

we still have no definite information where they are. He was also attracted by the great rock-cut tombs north of Jerusalem, known as the Tombs of the Kings, though they are more probably the family vault of a wealthy Herodian family. In 1863 he received permission to excavate them from the Turkish authorities, and found a number of sarcophagi—one of them inscribed with the name of Queen Sadah, who is totally unknown.

Following De Saulcy, came De Luynes and E. Pierotti. The latter published two volumes which were so unreliable that Sir George Grove decided the time had come for more systematic investigation of Jerusalem. Steps were at once taken which resulted in the formation of the Palestine Exploration Fund—the first of several such societies which came into being later—having as its sole object the careful and scientific collection and study of every kind of material from the Holy Land. The first public meeting occurred in June, 1865, under the presidency of the then Archbishop of York, and certain definite principles were laid down :

The collection of facts in every relevant department of knowledge was to be conducted on strictly scientific lines, and the results published. The society was to abstain from controversy, taking no responsibility for the theories expressed by contributors or officers in its publications ; and though its leading aim was the elucidation of biblical problems, it was to remain uncommitted to any form of dogma. As a result of strict adherence to this programme subscribers embody a variety of interested people all over the world. A high level of scholarship and scientific accuracy has been achieved and maintained in all the Fund's numerous publications.

Shortly afterwards a prospectus was issued and subscribers invited. A preliminary programme of work was set out, based on the knowledge acquired from a recent survey financed by the Baroness Burdett-Coutts, and conducted by Captain (afterwards General Sir Charles) Wilson. This survey had mapped everything that could be seen above ground, but nothing was yet known as to what lay under the soil. Besides Jerusalem the prospectus included the study of various places in the country—Shechem, Caesarea, Gilgal, Jericho, Beth-Shean, Jezreel, and the Tomb of Joseph (wrongly identified

by Guérin). Topography, geology, botany, zoology and meteorology were also to be undertaken by the society, each branch being represented by competent authorities, and a great survey of Palestine was to be undertaken by Lieutenants Conder and Kitchener (of Khartoum).

The ambitiousness of the undertaking was not realized at the time, and large hopes were built on the results. In fact enough to occupy any archaeologist for several lifetimes was given to the leader of the expedition, Captain (afterwards Sir Charles) Warren, to accomplish in three years. In the light of later experience the initial mistake lay in the drawing up of a specific programme of pre-conceived ideas as to what any given site is to produce. If there is one thing an excavator learns it is that any preconceived ideas are usually doomed to disappointment, and tend to blind him to what really is there. The only way to study a site is to approach it with the single purpose of finding out what it actually contains, and not what one thinks it may contain.

Jerusalem was Warren's first duty, and anyone who has read the account of his work will marvel at the magnitude of his task and the amount he accomplished under conditions of intense difficulty and arbitrary obstructions from hostile natives and Turkish authorities. The most important division lay in and around the Haram esh-Sherif, the great Moslem shrine commonly admitted to cover the site of Solomon's temple. The method he used was by tunnelling. Vertical shafts were dug to a certain depth and then horizontal galleries were constructed in an endeavour to lay bare the foundations of the immense outer walls of ancient times. Their base lay under 80-120 feet of debris which had accumulated in the valley during the passage of centuries. The method was costly and dangerous, the problem of foul air, had to be solved, the unstable material through which they were tunnelling had to be properly strutted to prevent collapse of sides and roof, and the excavated earth had to be removed along an increasingly lengthy tunnel by the laborious filling and carrying of basketsful, moreover, the supervision of all the workmen under such conditions was impossible, so that valuable objects were lost. Nor could stratification be studied. Nevertheless Warren reached the foundations, close to which he found a small

pottery vessel of late Hebrew date, though this was not recognized at the time because no real study of pottery had yet been made.

Similar tunnels were driven under the accumulation in the Tyropoean Valley close to Robinson's Arch—which was the spring of the colossal archway breaking out from the western wall of the Haram area close to its southern corner, and recognized by him as part of the viaduct which, according to Josephus, ran from the Temple to the Xystus or colonnade built by Herod. Warren found the foundations of the piers, and also proved that an even earlier viaduct had once existed there. The old water course was laid bare, but his most sensational find was the shaft tunnel whereby the ancient Jebusites obtained water. He also examined the Birket Israin, which may be the Pool of Bethesda, and began the various investigations for determining the course of the ancient city walls, which eighty years later are still going on.

At the close of Warren's expedition in 1870 the Palestine Exploration Fund ceased active excavation for a while, though a few small undertakings were carried out by Clermont-Ganneau and others. For several years the Fund gave its main attention to the task of surveying western Palestine. Lieutenants Conder and Kitchener were entrusted with the work previously begun by Capt. Wilson and Lieutenant Anderson. The result was later published in a one inch scale map and a series of large volumes on the topography, place-names, fauna, and flora of the country, with a special volume on Jerusalem. The survey drew attention to the characteristically rounded, flat-topped *tells* with flat, sloping sides scattered through the country, which are always the sites of ancient hill cities, in contrast to the *khirbeh* on the flat plains which usually takes the form of a group of ruins standing amid accumulated debris and is nearly always of later date. A *khirbeh* is often near a *tell* and may often bear a biblical name, whereas the *tell*, though older, may have an ordinary Arabic name. The reason for this is that when the population left the hill cities and migrated to lower ground in the safer Roman times, they as frequently carried the old name with them, and the derelict *tell* had to be renamed. Usually the last occupation on a *tell* just precedes the Roman.

In March, 1890, Dr. (later Sir) Flinders Petrie went to Palestine to examine a *tell* for the first time on behalf of the P.E.F. The site of Tell-el-Hesi near Gaza was chosen—then thought as the ancient city of Lachish. Petrie's experiences in Egypt had taught him the value of such trifles as potsherds, and it was he who revolutionised the whole technique of excavation. He may indeed be considered to be the father of scientific archaeology. Whereas earlier investigators had relied mainly on inscriptions and valuables, Petrie proved that far greater and more accurate information could be gained from the study of pottery in relation to the stratification in which it lay, and to analogies from other sites. Unimportant objects of daily use, and the texture, type of workmanship, shape and decorative detail of a pot, or object, were infallible guides as to provenance and date. Indeed nowadays it is an indispensable part of the work of an excavation staff to study and record every scrap of data which can be gathered from the meanest object. Nothing is too unimportant to be noticed, for therein may lie the clue to some hitherto unsolved problem. Thus in his brilliant six-weeks reconnaissance of Tell-el-Hesi Petrie laid the foundation of Palestinian ceramics upon which his successors have built. Moreover the careful clearing of one-third of the mound down to the rock showed conclusively that any characteristically native culture was not to be found in Palestine; a disappointing discovery which has since been amply confirmed.

The Tell-el-Hesi dig over, the P.E.F. turned once more to Jerusalem and Dr. F. J. Bliss was instructed to carry on where Warren left off twenty years before. In this he was associated with the late Mr. (later Prof.) Dickie of Manchester University. As before, the hostility of the authorities, and the suspicions of the fellahin, neither of whom could understand the European desire for increase of knowledge, and suspected treasure hunting or intended sabotage of sacred sites, created many unnecessary difficulties. Dr. Bliss started from the great rock scarp at the south end of the western ridge of the site of the traditional Zion and followed the complexity of walls down to the north side of the Tyropoeon Valley and ending at the Pool of Siloam. Foundations of gates and towers were traced and mapped and the whole of the southern limits at the time

of its greatest extension determined. At the Pool of Siloam itself the foundations of a church built by the Empress Eudocia were also discovered, as well as the remains of a Byzantine church on the Mount of Olives, with a beautiful mosaic floor. Sections of paved streets, drains, aqueducts and the mosaic floors of houses, all belonging to later periods of history were discovered and recorded, among them a beautiful Armenian mosaic floor still preserved in a modern house north of Jerusalem. Rock-cut tombs were also found and cleared, having been used as dwellings in pre-Israelite times.

Down to the end of the century the P.E.F. stood alone in active excavation work. A sister society the Deutsche Palästina-Verein had begun in 1878 to publish a journal full of valuable material in relation to the country. The splendid École Biblique de St Étienne, the chief French school of archaeology, conducted by professors of the Dominican order, had for some time been in existence in Jerusalem publishing a quarterly journal *La Revue Biblique* which contained biblical criticisms, ecclesiastical history and Palestinian archaeology. But until now neither of these and other bodies had done any actual excavation, publishing only what lay on the surface. Now, however, other nations began to compete in friendly rivalry with the British Society. In 1899, Dr. Ernst Sellin, a German scholar holding office in Vienna, visited the site of Ta'anach, and in 1902 obtained a licence to excavate. Thus Austria entered the field and concentrated on the more northerly part of Palestine, the ancient kingdom of Israel. It was soon established that there was little or no cultural difference between the North and the South, the same mud houses crowded within strong walls, the same pottery and commonplace utensils, the same hideous clay figures of the Mother-Goddess. The first discovery in Palestine of infant jar-burials was made here.

About the same time the P.E.F. began the excavation of Gezer, identified thirty years before by Prof. Clermont-Ganneau who found the city boundary inscriptions. The excavation of this mound occupied five years, 1902 until 1908, and three-fifths of the total site was dug over. The remains covered all periods from the Neolithic to the time of the Maccabees, and a long unbroken series of objects and structures

were unearthed. Throughout the whole mound, in every strata, the evidence of continued Egyptian influence came to light. As at other places, the *khirbet* nearby represented the Roman city, but contrary to rule it was the *tell* which retained the ancient name in the form of Tell-el-Jezari, the Roman city being known as Khirbet Yerdeh.

While these excavations were in progress, two more nations, Germany and America, joined in. Germany, represented by Dr. Schumacher, an architect long resident in Palestine who had done useful survey work, investigated Tell Mutasellim, a mound near Ta'anach, which was identified as the ancient Megiddo. The work was carried out on behalf of the Deutsche Palästina-Verein with the co-operation of the Deutsche Orient-Gesellschaft, and under the direct patronage of the German Emperor. Drs. Thiersch, Kohl and Watzinger undertook surface investigations of the sites of the ancient synagogues of Galilee. Lieutenant Kitchener had paid great attention to them during his Survey of Palestine, and determined the plan on which they were built. Now their foundations were examined, and the study of their ornamentation begun. The fine synagogue of Capernaum was afterwards acquired by the Franciscan Order who completely excavated and partly restored the ruins and published a sumptuous volume describing the results of the excavation. It is curious that not a single synagogue so far known belongs to the time of Christ. All are of a century or two later.

America chose Samaria and Dr. D. G. Lyon began operations on behalf of the Harvard University, which were afterwards continued by Dr. G. Reisner. This excavation was carried out on the large scale possible only to American excavators who are backed by a millionaire. Among the buildings laid bare were the palaces of Omri and Ahab, while a collection of ostraka in Old Hebrew characters threw light on the business transactions of the time of the Israelite monarchy.

In 1908, Dr. Sellin and Drs. Laugenegger and Watzinger began the excavation of Jericho. By this time the general course of civilization in the country had been reasonably determined, and excavators were learning what types of inferior daily utensils would appear monotonously on every site.

In 1911, Beth-Shemesh (Ain-Shems) was attacked by the P.E.F. under the direction of Dr. D. Mackenzie, and yielded tomb groups of deposited objects. In the extreme south two young men, C. L. Woolley (now Sir) and (the late Col.) T. E. Lawrence conducted in 1913 a preliminary survey of the Wilderness of Zin in the Negeb, reporting on the remains of various frontier forts and towns of Roman date.

With the dawn of 1914 and the First World War, excavation came to an end everywhere. But with the advent of peace Palestine found herself facing new prospects and ideals. Turkish domination had gone and the British Mandate took its place. Almost at once a properly equipped Department of Antiquities was established whose duty it was to survey, record and preserve ancient remains, besides checking the all-too-prevalent illegitimate digging for purely commercial purposes by unauthorised persons. The Turkish Government had previously established a Municipal Museum during the early years of the present century, and a considerable number of important objects from excavations in the Philistine Plain and Gezer were already in the possession of the Museum. The first task of the new Department was to take over and classify what remained of these objects.

America, France and Germany had already, before the war, founded flourishing schools of Archaeology, Semitics and Theology which gave students the opportunity of making acquaintance with the country and its antiquities, and of learning the technique of excavation. Now Britain came into line with them by founding in 1920 a school of her own. The "British School of Archaeology in Jerusalem" was created with Professor Garstang as its first Director, as well as Director of the Department of Antiquities.

It began in a small building on the outskirts of Jerusalem. Then the School and the Department of Antiquities and the National Museum moved to bigger premises until 1930. Until 1925 the American School housed their library there. In 1926, pressure of work necessitated the appointment of separate Directors for the Department of Antiquities, and the School.

With Palestine again open to science, a new impetus was given to research. Aerial photography, begun in the war, had

proved invaluable for the study of sites, and was to continue. Public interest was more general and the old heart-breaking delays and arbitrary difficulties created by the Turkish authorities were no longer a brake on the progress of investigation. The first site tackled was Askalon, under the direction of Prof. Garstang, and the auspices of the P.E.F. and the British School. The site was an extensive one, unencumbered by the clutter of modern habitation which so often prohibits more than a limited area of excavation on ancient sites. It was hoped to throw some light on the identity of the Philistines, whose origins even now are not really known. But hopes were disappointed; the Philistine strata lay deep down, and it was too soon after the war for sufficient funds to be available. Moreover it was overlaid by Herodian buildings of such historical importance that their removal was deprecated.

Jewish interest in the history of Palestine was now taking a national impetus, and the Jewish colonists founded a Jewish Exploration Society; a Jewish Museum was opened, and a journal published in Hebrew. Under the superintendence of Dr. Nahum Slousch, an examination of the Synagogue of Tiberias was undertaken, as well as the clearance of the Herodian tomb, popularly known as the "Tomb of Jehoshaphat", and a partial examination of the "Pyramid of Zacharias" nearby.

The British Palestine Commission also put in repair and refurnished the Bezalel Museum in Jerusalem, established in 1906 by Dr. Schatz, Principal of the Bezalel School of Art, who had painstakingly collected over 3,000 objects illustrative of Jewish life and history. Reopened under the name of the Palestine Museum it has developed into a fine national museum, with parts of it as adjuncts to the Hebrew University.

By 1922, all the various Schools and Societies, except the Germans, were hard at work again, co-operating with a spirit of friendliness that down to the present day has been the outstanding feature of their mutual and independent activities. Never once has any discordant note crept in, either in the field, or among their representative bodies at home. About now the American school, backed by the University Museum of Pennsylvania, began the investigation of Beth-Shan, one

of the prize sites of Palestine, a *tell* of widespread ruins representing the walled Canaanite city of Beth-Shan, and the acropolis of the later Scythian and Hellenistic city of Scythopolis, successor to Beth-Shan. A trial shaft 36 feet deep was sunk in the accumulated debris, and in subsequent clearance no less than eight different strata were uncovered in the first twenty to thirty feet, reaching at that depth a brick fortress of Seti I of the XIXth Dynasty (1373-1292 B.C.) Stelae erected by Seti I and Ramases II were discovered, as well as a seated statue of Ramases III. Also the foundations of a very early church of Basilica plan with a mosaic floor. The whole work was carried out on the lavish scale which has always only been possible to the Americans. The excavation of Beth-Shan continued until 1931 under the Directorship of Prof. Fisher, Mr. Rowe and Mr. G. M. Fitzgerald, successively. A magnificent account of the whole work was afterwards issued by the Americans with superb illustrations.

At the same time various Societies, among them the British School and the Assumptionist Fathers, were also doing extensive work at Jerusalem. Right up to the outbreak of the present war the effort to reconstruct the ancient remains of Jerusalem at all stages in its long history has gone on unabated. Most of the main lines of the city walls have been determined, and the early Jebusite city of Ophel excavated, but much still remains to be done.

During the last fifteen years about a dozen of the main Canaanite hill-fortresses have been excavated, and the overlapping of neighbouring civilisations found in their various stratas, has proved of tremendous value in clearing up vexed questions concerning contemporary developments and history among the great nations of the Near East and the Mediterranean.

In 1925, an organised system of co-operation was arranged between British, French, German and American Schools which enabled students to take any of the courses of study offered without any extra fees. In the summer months, when excavation is normally at a stand-still, all the Schools arranged conducted tours of important sites, for the convenience of visiting savants, and interested tourists. Public lectures were

given, and libraries of considerable size gradually accumulated for the use of students and research workers. In 1926 an international archaeological congress was held at Beirut, and the first guide to the Palestine Museum issued.

Much remains still to be surveyed, mainly in the extreme south, the reconnaissance there by Woolley and Lawrence in 1913 having been of a preliminary nature. The British School did undertake some excavations in the Negeb for three years, in 1935-8 of the ruins of Esbaita and Aujir Hafir, where abundant evidence of Nabataean influence was found, indicating considerable trade connections with their capital city of Petra. But otherwise the area is largely unstudied and the full records of the excavations still await publication.

It was in 1926 that J. D. Rockefeller, Junior, contributed £125,000 for a five-year excavation of Megiddo by Prof. Breasted on behalf of the Oriental Institute of the Chicago University (which excavated on that site over a period of thirteen years). He also gave £400,000 towards building, equipping and endowing a Museum in Jerusalem. The American School also received other grants which enabled it to build new premises for the housing of its library and lecture rooms. Since the British School has never had sufficient funds to build a school of its own, and no generous donor has come forward to place it on equal footing with other nations in this respect, space has been generously allotted to it by the Americans, who during the present war are also looking after its library.

During the nineteen-thirties excavation was in full swing, with joint expeditions, financed and staffed by international groups, thoroughly investigating the more important and extensive sites. From 1931 to 1933 (and joined in 1935 by Harvard University and the Hebrew University of Jerusalem), the P.E.F., the British School and the British Academy began work on Samaria, under the direction of Mr. J. W. Crowfoot. It was during this period that the great find of carved ivories took place which may have belonged to Ahab's ivory palace.

In 1933 also, the Wellcome Research Inst. sent a five-year expedition to the near East, under the auspices of Sir Charles Marston, Sir Henry Wellcome and Sir Robert Mond, and directed by Mr. J. L. Starkey, who in January, 1938 was

murdered by Arab robbers. Work was started on Tell el-Duweir (Lachish), and in 1935 the first discovery of the now-famous "Lachish Letters" was made. In 1929 Sir Flinders Petrie had begun a thorough investigation of the sites of ancient Gaza, and Beth-Pelet, which by 1933 had resulted in the first clear picture of the Hyksos period in Palestine, together with proof that it was they who first introduced the horse into Palestine and Egypt, revolutionising the military warfare of the period as completely as the introduction of the plane and the tank have done to-day.

Nor was study of the paleolithic period neglected. From 1925 onward Mr. Turville Petre, Miss Dorothy Garrod and others continued to prosecute a diligent search for the remains of primeval man; linking up the Palestine settlements with the paleolithic cultures of Europe and Africa, by the discovery of artefacts containing in their technique analogies to both. A magnificent collection of flint implements has been made by the Assumptionist fathers of Notre-Dame de France, housed in their Museum in Jerusalem.

In the Trans-Jordan the important cities of Geraza, Ezion-Geber, Petra and Balu'ah have been partially or wholly excavated, and Professor Glueck of the American school, assisted by the Department of Antiquities, has for several years been conducting a careful survey of the whole Trans-Jordan area, about which little has hitherto been known.

Now the outbreak of war has once more brought to a standstill, we hope only temporarily, all the wholehearted efforts of science to reconstruct for humanity the long and chequered story of its progress from its first beginnings down to these modern days, when it seems there is nothing that the brain of man cannot discover and turn to his own use—except perhaps the art of living at peace with his neighbour.

A NEW SECTION OF THE THIRD WALL,
JERUSALEM.¹

BY E. L. SUKENIK AND L. A. MAYER

IN 1928 we finished our excavations of the Third Wall of Ancient Jerusalem at the entrance to the American School of Oriental Research. In the small portion excavated within the courtyard proper, all that we discovered was the mosaic floor of a Byzantine building, but there were no traces of the Wall underneath.

The section of the Wall, uncovered on the road in front of the School, contained the remains of a gate with a tower to the west of it. It was natural to suppose that the Wall would continue eastward, for it seemed most unlikely that the gate of the city was at the angle of the Wall. This assumption was strengthened by the fact that our excavation underneath the foundations of the present Wall of the City, near Herod's Gate, in a straight North-to-South direction from the point of our last excavation, failed to yield positive results. In fact, Prof. Gallig, Père Mamert and Mr. Solomiac, who dealt with this problem after the publication of our book, thought that the Third Wall continued in a straight line eastward as far as the slope of the Kidron Valley, as Edward Robinson had thought nearly a century before. The most important point in the remaining part of the northern stretch of this Wall was, of course, the turn. But its distance from the gate of the Third Wall had to be determined by excavations.

The opportunity of continuing this excavation presented itself in August, 1940, when the Jerusalem Municipality undertook the construction of a network of roads in this section of the new city of Jerusalem. In the course of construction of a road running at the back of the American School of Oriental Research, parallel to Saladin Road, a few large and coarse stones were noticed appearing to be in line with the

¹ Translation of a Hebrew article published in *Kedem*, Vol. I, 1942.

course of the Third Wall which had been uncovered west of the School. The Department of Antiquities of the Government of Palestine, which was supervising the various archaeological discoveries made at that time in this area, informed us about these large stones. That same week the new excavation was started, this time on behalf of the Hebrew University in co-operation with the American School of Oriental Research. We were at work during August and September, first on the road passing by the School and later inside its enclosure. East of this point, across the road, there is the playground of the Raudat al-Ma'arif School, and beyond it two private houses set in gardens, where we could not excavate. Consequently, we had to find a convenient spot for further excavations east of these houses. We resumed our work in November on a plot of land owned by Mr. Ishaq Darwish, which the Municipality had assigned for the construction of a road—about 150 metres east of the property of the American School of Oriental Research.

We wish to take this opportunity of expressing our sincere thanks to all those who assisted us in one way or another in the course of our work : Mr. R. W. Hamilton, Director of the Department of Antiquities of the Government of Palestine, was very kind in issuing immediately the necessary licence and in sending the chief photographer of the Palestine Archaeological Museum, Mr. J. Schweig, to photograph the finds. We are grateful to the Town Clerk of Jerusalem, Mr. R. D. Badcock, and the City Engineer, Mr. A. K. Park, who suspended the work of road construction until we had completed our excavation and suffered with extreme grace and tolerance the inconvenience caused to them in their work. Prof. C. S. Fisher, Acting Director of the American School of Oriental Research, offered us at the very beginning the co-operation of the School, an offer which proved a great help in many ways. We appreciate very much Mr. Ishaq Darwish's goodwill and neighbourly friendliness whilst we excavated on his property. Mr. N. Avigad of the Museum of Jewish Antiquities assisted us during the excavations and prepared the plans and drawings accompanying this report. Nor can we fail to mention Mr. Michael Solomiac who has taken such an active interest during the last few years in the course of



FIG. 1. SKETCH PLAN OF THE NEW SECTION OF THE THIRD WALL AND THE EASTERN END OF THE PREVIOUSLY EXCAVATED PART

I, II—THE NEW ADDITIONS

- 1—NABLUS ROAD
- 2—SALADIN ROAD
- 3—ECOLE BIBLIQUE
- 4—AMERICAN SCHOOL OF ORIENTAL RESEARCH
- 5—HIJAZI MOSQUE.

the Third Wall in connection with his theory concerning the location of the Tower of Psephinos and other towers in the walls of the Old City of Jerusalem. Mr. Solomiac was kind enough to call our attention to various finds in this area which seemed to be remains of the Third Wall, and he helped finance our excavation by a contribution to the Hebrew University.

Lovers of the antiquities of Jerusalem evinced great interest in this excavation. We were favoured quite frequently:

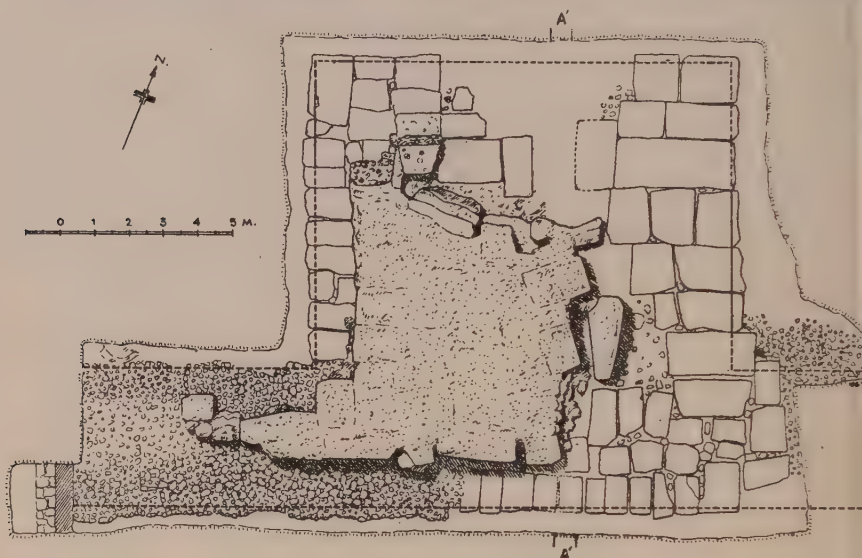


FIG. 2. THE TOWER NEAR THE AMERICAN SCHOOL OF ORIENTAL RESEARCH. A'-A' MARK THE FENCE OF THE SCHOOL GARDEN.

to our great pleasure, with the visits of members of the Department of Antiquities and the Palestine Archæological Museum, the President of the Hebrew University, members of the French Archæological School of the Dominican Fathers (to our regret Père Vincent was absent from Jerusalem at the time of our excavation, having remained abroad), the Director of the Pontifical Biblical Institute, and members of the Board of the Jewish Palestine Exploration Society.

The section which has been excavated by us and by the American School of Oriental Research on the grounds of the

School (Plate III, 1) contains the remains of a wall 23 m. in length, and a tower projecting to the north 9 m. in width (Fig. 2). Of the wall itself on either side of the tower, only the bedding has remained. Of the tower, the foundation layer was left, built of large flat stones, ranging in thickness from 20 cm. to 60 cm. The stones vary in size, the largest one measuring 3.30 m. in length and 1.50 m. in width (Plate III, 1). It should be noted that the larger stones were on the east side of the tower, and the smaller ones on the west (Plate III, 2). This layer was built on top of a thin bedding of small stones joined with cement, and resting on undisturbed soil composed of red loamy earth and rough stones, larger in size the nearer to the rock. At the south-east corner we found the rock at a depth of 1.30 m. beneath the first layer of stones. Between these stones, as well as between them and the layer above, there were patches of cement still adhering in various places. These remnants of cement made it possible to determine the exact position of the upper layer which has receded a little. Traces of this line are discernible on the east side for a length of 4-5 m. and somewhat more faintly on the western side of the tower. On two of the north-east corner stones there are grooves near the northern edge which apparently served to indicate the continuation of the line of the upper layer of stones (we found similar grooves, although clearer and of better workmanship, serving as indication for the masons in the westernmost tower of our previous excavation).

Only a few broken fragments were left of the upper layers of stones. On the other hand, a considerable part of the interior of the tower has remained intact. It consists of a filling of large coarse stones and solid blocks of smaller stones cemented together. On the western side of the tower this filling rests on the second row of foundation stones and on the northern side on the fourth row. A large part of the eastern portion was apparently destroyed during the construction of the road and the erection of the wall-fence of the American School of Oriental Research. The height of this filling above the foundation layer is 1.10 m. Presumably the foundation layer extended over the entire area of the tower and was covered by the filling, as can be seen near the edges of the

latter. However, since we did not demolish this block, we cannot make any definite statements with regard to the central area of the tower.

In the second portion east of the American School of Oriental Research (Plate IV, 1), the central point from which we started our excavation was a heap of rough-hewn

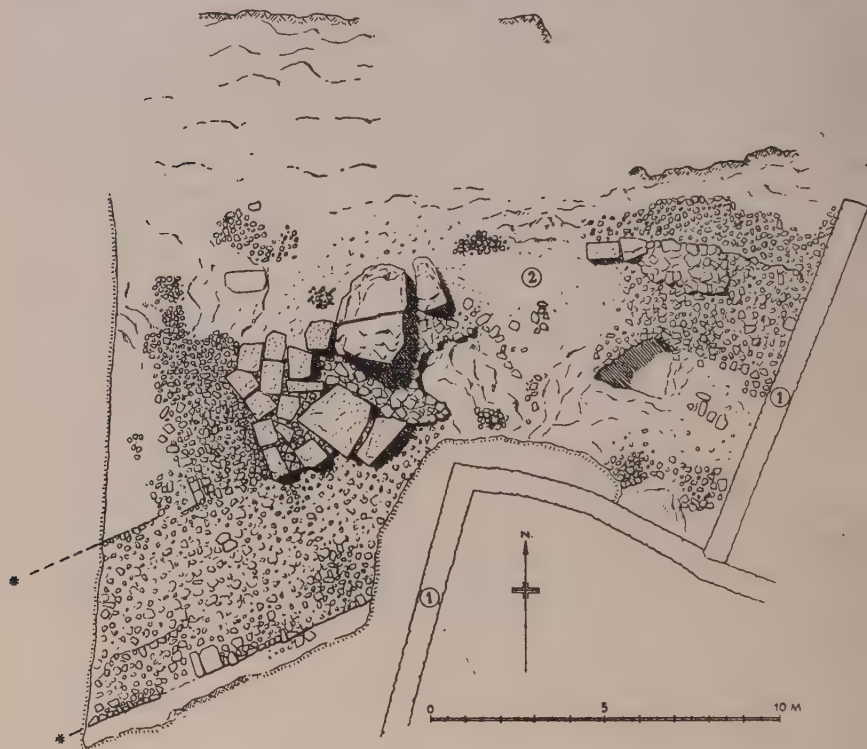


FIG. 3. THE EASTERN END OF THE EXCAVATION. 1—THE FENCE OF TWO ADJACENT HOUSES; 2—SITE OF ARAB KILN

stones near the block of solid rock rising almost to the height of the level of the ground at this spot. The large stones (0.60–1.10 m. high; 0.60–1.70 m. long; 0.60–1.60 m. wide) were placed either closely together or else the space between them was filled with earth and rubble. They rested on a bedding made up of small stones held together with clay and lime, which extended beyond the stones in all



1



2

THE TOWER NEAR THE AMERICAN SCHOOL OF ORIENTAL RESEARCH.

1. EASTERN PART LOOKING SOUTH.

2. WESTERN PART, LOOKING SOUTH.



1



2

THE EASTERN END OF THE EXCAVATION

1. HEAP OF STONES FORMING THE INTERIOR OF THE TOWER, LOOKING EAST.
2. REMAINS OF WALL, ADJACENT TO THE TOWER, LOOKING EAST.

directions. As the excavation showed, this heap of stones formed the interior of a tower. In the eastern half of our area we found a kiln of the Arabic period built into the Wall.

The remains of our finds in this section are shown in Fig. 3. That part of the bedding which is marked by asterisks indicates the line of the Wall, about 4.80 m. in width (Plate IV, 2). The portion which projects northward, extending at least 7.50 m. in width and 20 m. in length, forms a tower. On the west side, the outlines of the bedding seem to indicate that the tower was at right angles to the line of the Wall. The eastern and the northern boundaries remain undefined—the eastern, since we could not excavate on the private fenced-in property to the east of the excavation grounds; the northern, since the bedding was destroyed for the most part and only the rock-cuttings can perhaps serve as guidance in determining the outer extremity to which the tower extended. At all events this tower is the largest of all the towers we have uncovered so far in our excavations of the Third Wall.

The unusual length of the tower and the high level of the ground in this section, which drops suddenly in the immediate neighbourhood, lead one to suppose that there must be a turning point in the course of the Wall somewhere nearby. This assumption, however, can be turned into a certainty only by a further excavation, which we hope to undertake very soon.

This new section—beginning at the easternmost point of our excavation in 1928—has added 265 metres of length to the course of the Third Wall.

CONCERNING THE ERA OF NYSA-SCYTHOPOLIS

BY STELLA BEN-DOR

THE era employed in Nysa-Scythopolis in Roman times may be gathered from dated coins struck in this town. But unfortunately, until 1914 when Hill published his monumental *Catalogue of the Greek Coins of Palestine* only few such coins were known, and these showed that two different eras were in use¹.

Coins of Scythopolis began to be struck in the reign of Nero and they are dated according to a Caesarean era starting in 47 B.C. The next dated coins known were those of Gordian III², which bear dates according to an era starting somewhere between 64 and 61 B.C., i.e. in the time of the Pompeian settlement of Palestine. In view of a recent discovery made at Scythopolis (Beth-Shan) we are now able to fix the Pompeian era more precisely: in 1930 FitzGerald excavated a mosaic pavement of the sixth century A.D.³ bearing a dated inscription which was subsequently discussed by Alt⁴ and Vincent⁵. Both arrived at the conclusion that in Scythopolis the Pompeian era was reckoned from the year 64/3 B.C. This date is proved, it is true, for the Byzantine period only, but we may safely assume that the same starting point was in use since the first introduction of this era. Furthermore, the era of 64/3 B.C. was employed in other towns of the Decapolis, such as Abila, Dium, Gadara, Hippus, Pella.

No evidence was available with regard to the era used in Scythopolis during the 169 years which elapsed between the death of Nero and the accession of Gordian III. A few coins which have come to light in more recent years, five of

¹ *B.M.C. Palestine*, pp. xxxiv-xxxv, 75-77.

² A coin of Geta the date of which was wrongly read, will be discussed below.

³ *P.E.F. Q. St.*, 1932, p. 148, Pl. V, Fig. 11.

⁴ *Zeitschr. d. Deutsch. Pal. Ver.*, Vol. 55, 1932, p. 132.

⁵ *Revue Biblique*, Vol. 42, 1933, p. 561.

which seem to be hitherto unpublished, help to fill this gap, or rather to narrow down its limits. Let us first consider the five unpublished coins, which are in the possession of the Museum of Jewish Antiquities of the Hebrew University, Jerusalem.¹

1. Æ, 24 mm., 9.82 gr., ↑

Obv. Bust of *Commodus* r., laureate, undraped; around:...

ΚΟΜΟΔΟΣ ΑΝΤΩΝΙΝΟΣ. Border of dots.

Rev. Dionysus nude but for chlamys over l. shoulder, standing l., resting with l. on thyrsus, with r. pouring wine from oinochoe to panther seated l., head turned up²; around: ΝΥΣΚΙΕ ΑΣΥΘΜΣ, i.e. ΝΥ (σαίων) ΣΚ (νθοπολειτων) ΙΕ (ρας) ΑΣΥ (λον) Border of dots.

The last three letters represent the date ΘΜΣ=249. The Caesarean era would give as its equivalent the year A.D. 202 which is obviously impossible since Commodus died in 193. The Pompeian era gives the date A.D. 185/6 which falls within his reign.

2. Æ, 21 mm., 12.92 gr., ↑

Obv. Bust of *Geta* r., bare-headed, draped; around:...

ΤΕΤ...

Rev. Tyche wearing turreted crown, standing r., l. foot raised on half-figure of river god, holding in l. hand cornucopiae, r. resting on spear or sceptre³; around:... ΘΟΙΕΡΑΣΥ, i.e. . . . [ΣΚΥ] ΘΘ (πολειτων) ΙΕΡ (ας) ΑΣΥ (λον); in field left and right the date ΟΣ=270. Border of dots.

According to the Caesarean era the year 270 would correspond to A.D. 223, according to the Pompeian era to A.D. 206/7. The latter is correct, since Geta was murdered in A.D. 212.

3. Æ, 23 mm., 6.46 gr., ↑

Obv. Bust of *Julia Domna* r., draped, hair in flat coil at back of head; around: ΙΟΥΛΙΑ· ΔΟΜΝΑ· . . . Border of dots.

¹ I have to thank Prof. E. L. Sukenik for kind permission to publish the coins and for placing the photographs at my disposal.

² For a similar reverse on a coin of Marcus Aurelius, see *B.M.C. Palestine*, Pl. VIII, No. 3.

³ A similar reverse on a coin of Geta is described by de Saulcy, *Numism. de la Terre Sainte*, p. 288.

Rev. Type similar to preceding; around: ΝΥΣ· [ΣΚΥ·]¹ IEP·ΑΣΥ, i.e. ΝΥΣ (αίων) ΣΚΥ (θοπολειτων) IEP (ας) ΑΣΥ (λον); in ex. the date ΘΟΣ=279. Border of dots.

The date according to the Caesarean era is A.D. 232, according to the Pompeian era A.D. 215/6; the latter is the only one possible, for Julia Domna died in A.D. 217.

4. Æ, 27 mm., 17.87 gr., ↑

Obv. Bust of *Elagabalus* r., laureate, draped and cuirassed; around: ΑΥΤ·Κ — — — Σ. Border of dots.

Rev. Within a wreath tied at the bottom, six lines of inscription: ΑΠΣ | ΝΥΣΑ | ΩΣΚΥΘ | ΟΠΟΛΕΙ | ΕΑΡΑΣΑ | ΣΥΛΟΥ.

The reverse legend starts with the date ΑΠΣ=281, followed by the words ΝΥΣΑΩ (ν) ΣΚΥΘΟΠΟΛΕΙ (τον) ΕΑΡΑΣ (for *ερας*) ΑΣΥΛΟΥ. The date ΑΠΣ=281 is equivalent to A.D. 234 according to the Caesarean era, and to A.D. 217/8 according to the Pompeian. The year 234 would bring us within the reign of Severus Alexander, but this attribution is impossible on iconographic grounds. The year A.D. 217/8, on the other hand, falls within the reigns of Caracalla, Macrinus and Elagabalus. The beardless portrait obviously cannot be that of Macrinus, and there remains the choice between Caracalla and Elagabalus. But as Caracalla is usually represented with a small beard in the last years of his reign, we are inclined to assign the coin to Elagabalus.

5. Æ, 27., 16.85 gr., pierced, ↓

Obv. Bust of *Elagabalus* r., laureate, draped; around: ΑΥΤΚΜΑΥ ΑΝ — — — ΝΟΣ.

Rev. Within a wreath, five lines of inscription: ·ΠΣ | ΝΥΣΑΕΩ | [c] ΚΥΘΟΠ. | ΙΕΡΑΣΑ | ΣΥΛ. |

The first letter at the beginning of the legend is not clear and may be either Β or Δ. The date is therefore either ΒΠΣ=282, or ΔΠΣ=284. The Caesarean era would correspond to the years A.D. 235 and 237 respectively, both after the death of Elagabalus. The Pompeian era gives the equivalents A.D. 218/9 for ΒΠΣ, and A.D. 220/1 for ΔΠΣ. Both dates fall within the reign of this emperor, in agreement with the obverse legend.

¹ The reading is corroborated by another specimen of the same coin, also in the possession of the Museum of Jewish Antiquities which bears the reverse legend [N]VC·CKV· IEPACV; the date is effaced.

The validity of the Pompeian era for our coins is thus clearly established. This evidence agrees well with that of two other coins which became known after the publication of Hill's Catalogue. In 1920 Babelon published a coin of *Marcus Aurelius* with the date $\Theta\Lambda\Sigma = 239$, which he rightly referred to the Pompeian era.¹ A coin of *Caracalla* was described by Lambert in 1932²; the exergue on the reverse contains the two letters $\text{O}\Sigma$ which, he thought, were "probably intended to conclude the inscription and not to be read as a date." But Regling³ explained their true meaning as the year 270 of a Pompeian era. It is therefore evident that the Pompeian era was in use in Scythopolis from the time of Marcus Aurelius onwards.

The only coin which seems to contradict this statement is that of *Geta* published by de Saulcy⁴, and bearing according to him, the date $\Delta\text{N}\Sigma = 254$; if calculated by the Pompeian era this date would bring us into the year A.D. 190/1 when Geta was one year old! But de Saulcy himself says that "le chiffre des dizaines seul est incertain." If we assume therefore with Regling⁵ that the correct reading should be $\Delta\Xi\Sigma = 264$, the date would be A.D. 200/1.

The coins known so far and bearing dates according to the Pompeian era of 64/3 B.C. give the following equivalents:

	ANNO SCYTHOP.	A.D.
Marcus Aurelius	239	175/6
Commodus	249	185/6
Geta	264(?)	200/1
"	270	206/7
Caracalla	270	206/7
Julia Domna	279	215/6
Elagabalus	281	217/8
"	282 or 284	218/9 or 220/1
Gordian III ⁶	304	240/1

¹ *Revue Numism.*, 4e série, Vol. XXIII, pp. 117-118, Pl. VI, No. 11.

² *Quart. of the Dept. of Ant. in Palestine*, Vol. I, p. 134, Pl. LV, No. 19.

³ *apud* Thiersch, "Ein hellenistischer Kolossalkopf aus Besan", in *Nachrichten von d. Gesell. d. Wiss. Göttingen*, phil-hist Kl., 1932, p. 68, n. 2.

⁴ *Numism. de la Terre Sainte*, p. 288.

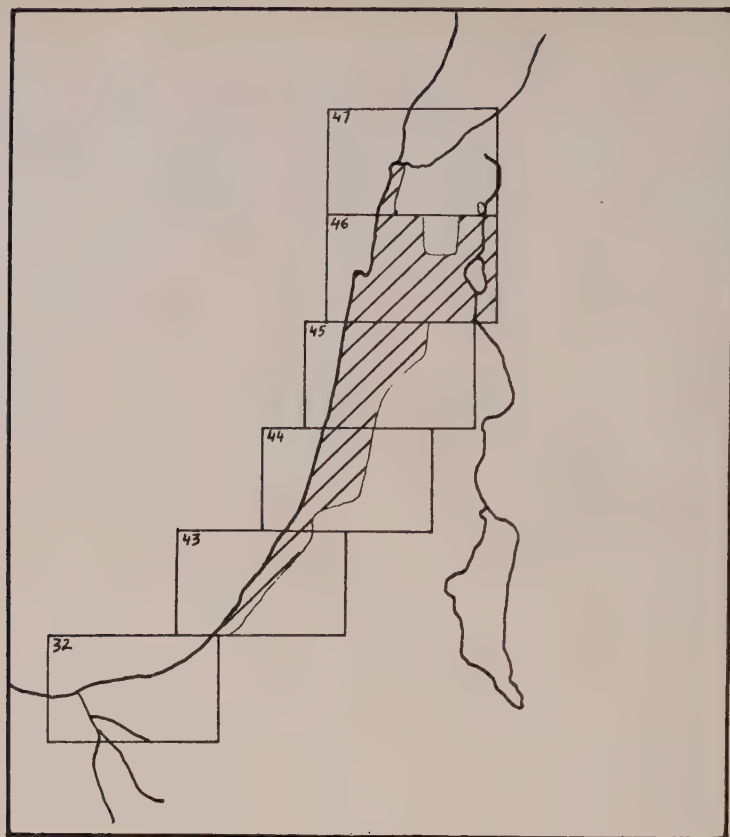
⁵ *loc. cit.*

⁶ *B.M.C. Palestine*, pp. 76-77.

We may therefore conclude that the change from the Caesarean era to the Pompeian occurred in the period between the reigns of Nero and that of Marcus Aurelius. Future finds of coins may enable us to narrow down these limits still further.



COINS OF NYSA-SCYTHOPOLIS (1 : 1)



PALESTINE

THE SHADED PORTION WAS SURVEYED BY JACOTIN IN 1799

JACOTIN'S MAP OF PALESTINE, SURVEYED DURING NAPOLEON'S CAMPAIGN IN 1799

BY D. H. KALLNER¹

IN 1799 Napoleon intended to extend his oriental conquests into Palestine and Syria and started the Palestine expedition which took place from February to June of that year and eventually failed in the unsuccessful siege of Acre. The survey operations during this campaign were carried out by Colonel M. Jacotin, the director of the French Military Survey Corps in Egypt. The survey covered the following parts of Palestine : the western part of the coastal plain to the south of Jaffa, the whole coastal plain north of Jaffa, the Carmel Mountain land, the Esdraelon plain, Lower Galilee and a part of Upper Galilee as far east as to the Jordan Lower Galilee, where the French army operated during a relatively longer period, is the best mapped part of the country (sheet 46).

Technically the survey was a "compass traverse."² Thus Jacotin's map is the first modern map of Palestine, based on an instrumental survey.

The map was published in six sheets on the scale 1 : 100,000 as part of the "Description de l'Egypte," containing the results of the investigations of the many scientists who accompanied Napoleon. The illustrations of this work are contained in eleven large-sized volumes : "Description de l'Egypte ou recueil des observations et des recherches qui ont été faites en Egypte pendant l'expédition de l'armée française." Seconde

¹ The author's thanks are due to Mr. E. Rosenau for having drawn his attention to Jacotin's map and for many helpful suggestions, and to Dr. I. Ben-Dor, Librarian of the Palestine Archaeological Museum, for his kind help.

² "M. Jacotin fut le seul" (ingénieur-géographe) "désigné pour aller en Syrie: il leva, au pas et à la boussole, les marches et campements de l'armée depuis Kaïre jusqu'à Acre, et tous les pays qu'elle parcourut." *Mémoire*, p. 448).

édition dédiée au roi, publiée par C. L. F. Panckoucke.¹ Tome VIII of these volumes is the "Atlas géographique," containing: "Carte topographique de l'Égypte et de plusieurs parties des pays limitrophes; levée pendant l'expédition de l'armée française, par les ingénieurs-géographes, les officiers du génie militaire et les ingénieurs des ponts et chaussées, assujettie aux observations des astronomes. Construite par M. Jacotin, Colonel au Corps Royal des ingénieurs-géographes militaires, chevalier de l'ordre Royal et militaire et de Saint-Louis et de la Légion d'Honneur, Membre de l'Institut d'Égypte. Gravée au dépôt général de la guerre à l'échelle de 1 Millimètre pour 100 Mètres. Publiée par ordre du Gouvernement. Paris 1826². 47 feuilles. The following sheets of this map 1 : 100,000 contain parts of Palestine :

feuille 32	El Arîch
43	Gaza
44	Jérusalem—Jaffa
45	Césarée
46	Acre, Nazareth, le Jourdain
47	Tyre, Sidon

The same atlas contains furthermore a generalized edition of the above-mentioned map in three sheets in 1 : 1,000,000, as follows: "Carte géographique de l'Égypte et des pays environnants, réduite d'après la carte topographique, levée pendant l'expédition de l'armée française, par les ingénieurs-géographes, les officiers du génie militaire et les ingénieurs des ponts et chaussées; assujettie aux observations des astronomes. Par M. Jacotin. Echelle de 1 Millimètre pour 1,000 Mètres. Paris 1828." A "Mémoire sur la construction de la carte de l'Égypte" by M. Jacotin is found on pp. 437-652 of the

¹ The second edition is cited here for references as this is available in the library of the Palestine Archaeological Museum.

² The year of publication is not indicated on the title-page of the first edition of the 1 : 100,000-map. According to R. Rohricht: *Bibliotheca Geographica Palaestinae*, Berlin 1890, p. 630, No. 323, it was edited in 1810. Rohricht erroneously states the number of sheets as thirty-four—actually there are forty-seven sheets as in the second edition.—The 1 : 1,000,000-map of the first edition, however, shows the year 1818.

seventeenth of the twenty-four volumes of the *Description de l'Égypte*, edited by C. L. F. Panckoucke. Seconde édition, Paris 1824. 656 p. Pp. 594-609 of this volume deal with the maps of Palestine, called "Syria" according to the custom of those times. The delineation of the sheets referring to Palestine is shown in fig. 1.

The map is drawn in a conical projection¹. It is based on a number of astronomically fixed points in Egypt, the main one being the Pyramid of Cheops. In Palestine no astronomical observations have been made, but earlier data regarding geographical positions have been used.² Whereas the latitudes are generally correct, the longitudes are by twenty minutes too far east.

During this expedition in enemy-territory the activity of the surveyors was of course restricted to the area traversed by the French army. The map, therefore, is composed of two parts of very unequal reliability: the one actually surveyed and quite correctly drawn and the second compiled from various sources or left blank.

It appears at once that this latter part is a "survival" of the pre-survey epoch of Palestinian cartography. Instead of the broad block of the Judean Mountains there appears one dividing ridge winding like a serpent in broad bends from N to S. Secondary ridges diverge from it, mostly in a W-E direction; one of these ridges passing south of Ramle ends even SW of it. The representation of the relief on sheet 47 is most fantastic, showing long, small, parallel ridges, which strike NE-SW; but p. 608 of the *Description de l'Égypte* volume XVII contains a remark that the survey of this sheet is only preliminary. The representation of the mountains is partly done by elongated pictorial hill drawings as usual on ancient maps, partly by a kind of hachures. The insufficient topographical knowledge of Palestine at the beginning of the nineteenth century is well illustrated by the curious outlines of the Jordan—bending to the E into the Ajlun—and that of the Dead Sea as shown on the small scale map. (see fig.).

The same topographic inadequacy concerns the location of a number of villages. On some parts of the map a con

¹ *Memoire*, p. 492 f.

² e.g. C. Niebuhr's observations for Jerusalem (1766).

siderable number of villages is drawn, part of them very incorrectly with regard to their relative position. This refers *e.g.* the surroundings of Safad on sheet 46, to the area between Jenin, Qumia and Beisan on sheet 45 and to a certain degree also to the surroundings of Jerusalem where Bira and Ramallah have been omitted.

The other part of the map, being within the area of operation of the French army is of a considerably higher standard. The relative position of the villages is accurate, so are the roads, and, in addition, the type of cultivation is shown. At Gaza the low-lying SE-quarter, inhabited to-day mostly by peasants and suburban in character is already marked as "Faubourg" by Jacotin. Large parts of the coastal plain even south of Deir el Balah and of the plain of Esdraelon are shown as cultivated fields. The Shephela hills or at least the western part from about south of Qalqilya to Ein Ghazal on the Carmel are shown as densely wooded. The maps of the "Survey of Western Palestine" (sheet 8, 1883) still show an extensive forest of oaks near Benyamina in the north of the area, and the Carmel has even to-day a wide spread bush vegetation. These Shepheia—"woods" possibly indicate the olive-groves. If this assumption is right they are far too uniformly spread over the country.

There are a number of errors in Jacotin's map which were subsequently repeated in other maps of Palestine. The most curious error concerns the coast-line. On pp. 598-9 of the *Description de l'Egypte* Vol. XVII, Jacotin states: "Malgré nos efforts pour reconnaître la côte, particulièrement les ruines d'Ascalon, nous n'avons pu voir la mer qu'aux embouchures des rivières et des ruisseaux qui s'y jettent, nous n'indiquons que les sinuosités qu'elle forme"; "à l'exception cependant du littoral compris entre l'embouchure du Rubine et la partie au-delà d'Acre, lequel a été suivi et levé au pas et à l'aide de la boussole." Consequently the coast-line is drawn quite correctly on sheets 45, 46 and on the northern part of 44. But it appears from the passage "nous n'avons pu . . . indiquer les sinuosités qu'elle forme" that Jacotin was convinced that the coast-line was not straight. It has been drawn, therefore, on sheets 32, 44 and 44, south of Wadi Rubin, with a continuous number of bays and promontories, some of the bays penetrating 3 kms. in

nd. On the other hand the landward border of the dunes is given correctly, as it has been actually seen by Jacotin. This lighted coast-line south of Jaffa reappears on many maps, the most important one being the "Map of Palestine, chiefly from the itineraries and measurements of E. Robinson and E. Smith, constructed and drawn by H. Kiepert. 1840. 1 : 400,000" illustrating E. Robinson's *Biblical Researches in Palestine, Mount Sinai and Arabia Petraea*. A Journal of Travels in the year 1838." Vol. II, London, 1841. Another edition of Kiepert's map on a larger scale quotes Jacotin as one of the sources for its compilation.¹ The first map showing the coast-line correctly is the British Admiralty chart "Tyre to El Arish," surveyed by Mansell, 1860-62.² Its results have been incorporated in Van de Velde's map,³ which shows many improvements both against Jacotin and Mansell.

Two other errors copied by Kiepert, but corrected by Van de Velde concern the names and positions of places. The names of Majdal and Hamama in the southern coastal plain have been interchanged by Jacotin. On sheet 45 the villages between Tulkarm and Qannir are drawn quite wrongly both as regards distance and direction between each other. Thus Zeita is shown 7 km. to the NNE of Qaqun on a place which according to the hydrographical drawing of the map must be at 143 197 according to the co-ordinates of the Survey of Palestine, instead of 1549 1991.

Another remarkable point is the representation of the dunes on sheets 32 and 43. It is impossible to distinguish between these dunes and ordinary hills. In the eastern part of sheet 32 one long ridge has been drawn, and on sheet 43, 44 a somewhat broader zone, but without giving the slightest

¹ R. Rohricht *op. cit.*, p. 638, No. 431. H. Kiepert : Karte von Palästina. 3rd edition. 1 : 200,000.

² "Mediterranean—Coast of Syria. Sheet 3. Ras en-Nakura to El Arish." Surveyed by the Officers of H.M. Ship *Firefly* under the direction of Comm. A. L. Mansell, R.N. 1862.

³ C. W. M. van de Velde "Map of the Holy Land, from his own surveys in 1851, 52 and 62 ; from those made in 1841 by Majors Robe, Rochfort and Lieut. Symonds, R.E. ; from the triangulations made in 1860-62 under the direction of Comm. A. L. Mansell, R.E., and from the researches of Robinson, Wetzstein and other travellers." Gotha, Perthes, second edition, 1865 Scale 1 : 315,000.

impression that the hilly country shown is dunes. The representation of the Carmel, especially of its southern part is very inadequate too.

The names of the villages shown on the map are sometimes more or less mis-spelt or simply represented by the word "village." The map comprises many villages which are uninhabited to-day, which probably were small hamlets or temporarily inhabited only. On the other hand a number of settlements existing to-day and situated within the survey area are not shown in the map. But as the map cannot be regarded as an absolutely reliable source of information, no conclusion can be drawn from this fact alone.

The roads shown on Jacotin's map are of considerable interest. On a map surveyed by military topographers the roads should be one of the most reliable features, much more reliable than the names and even locations of villages and the topography of distant areas. It must, however, be remembered that in those days the "roads" were only mule-tracks or mule-paths, as the first inter-urban carriage road built in Palestine, the road from Jaffa to Jerusalem, was built in 1867-69 only. Nevertheless the roads drawn on Jacotin's map deserve special treatment, giving evidence of the lines of communication generally used at his time. From the two types of roads indicated on the map, the "Grand chemin" or "Sekk" or "Soltânîéh" and the "Route ordinaire" or "Tarîq," the first one only is of interest to us. Twenty-six roads of this kind are shown on the map, they are reproduced in fig 3. As Lower Galilee is generally the best represented part on the map, but seven of them are in that district. It may safely be assumed that while elsewhere the very main roads have been entered on the map, routes of secondary or even third-class importance have been shown in Lower Galilee with the same signification. Many of these roads have not changed materially since Roman times as may be seen from a comparison of Jacotin's map with Avi-Yonah's "Map of Roman Palestine."² This identity

¹ The first motor-car which appeared in Jerusalem belonged to an American touring the world. He arrived from Haifa on March 13th, 1908 (cf *Mitt. u. Nachr. D. Paläst. Verein.* 14. Jg. 1908, p. 73).

² M. Avi-Yonah: *Map of Roman Palestine. Quart. Dept. Antiquities, Palestine*, V, 1936, pp. 1390-195. Map 1: 250,000.

once more stresses the fact that roads and sites of settlements are the two most conservative features in the human geography of Palestine. The revolution in the road-system of Palestine was brought about at the end of the last century with the introduction of carriages instead of pack-and riding-animals, and much accelerated by the development of motor-traffic.

Jacotin's map shows on the whole a great consistency of the courses of the roads. It seems, however, that in a number of cases the roads in 1800 did not avoid the plains and basins as much as in 1875, this probably indicating the increasing deterioration of these areas in the nineteenth century before the drying-up of the swamps brought about by the Jewish colonisation.

It may be added that the Atlas which comprises the Nile Valley from Assuan northward, the Delta and Palestine, is engraved on copper-plate in the fine manner of that period and printed in imperial folio.

THE NUMBER OF ISRAELITES AT THE EXODUS¹

BY A. LUCAS

IN any consideration of the Exodus an important factor is that of the number of the Israelites at the time, since this has a considerable bearing both on the water supply and also on the food resources of the route taken.

The Bible states that the number was "about six hundred thousand on foot that were men, beside children. And a mixed multitude went up also with them. . . ." (Exodus xi, 37, 38.) Also, "And Moses said, The people, among whom I am, are six hundred thousand footmen. . . ." (Num. xi, 21.)

If to the 600,000 men, the women and children are added, the total number of persons probably would be about two millions.

The composition of the mixed multitude is not stated and it is often assumed that it consisted of persons other than the Israelites. There is, however, no evidence for this, and no evidence of the presence of anyone but the Israelites at any subsequent stage of the journey. The women, the girls, the boys and the very young children might reasonably be described as a "mixed multitude."

Twelve months and a fortnight after the Israelites had left Egypt, and while they were in the neighbourhood of Mount Sinai, a census was taken of the men of the age of twenty and upward who were able to fight, the Levites not being included. The census was "by their families, by their fathers' houses, and the separate total of each of the twelve tribes is given (Num. i, 1-49; ii, 1-33), the grand total being 603,550 (Num. i, 46; ii, 32; Exod xxxviii, 26).

A separate census was taken of the Levites, which included (a) all males of a month old upward (Num. iii, 15-34), and (b) all males from thirty to fifty years old (iv, 35-45). The total

¹ All quotations are from the Revised Version of the Bible.

number of (a) is given in one place (Num. iii, 39) as 22,000 and in another place (Num. xxvi, 62) as 23,000, though an addition of the separate items comes to 22,300. The total of (b) was 8,580 (Num. iv, 48).

A census was also taken of "all the first-born males of the children of Israel from a month old and upward," the number of whom was 22,273 (Num. iii, 40-43), or 273 without the Levites (Num. iii, 46-50), the number of whom is manifestly taken as 22,000.

The two lots of numbers, 600,000 and 603,550, are impossibly large, both for any attainable increase during the sojourn in Egypt of the small number that settled originally in the country (Gen. xlv, 27), and for the food and water resources of Goshen and the wilderness.

The number of Levites and the number of first-born males are also too large, though the latter is too small in comparison with the number of men of twenty years of age and upward.

Three facts which do not agree with the large numbers are, first, that only two midwives were required for all the Israelites (Exod. i, 15); second, that Moses alone was able for a time to settle all the important disputes for the whole community (Exod. xviii, 13-18), and, third, that the total of non-Levite first-born male children was only 273.

The large numbers, however, are paralleled by the results of a second census taken about forty years after the first, when the Israelites were at Shittim on the east side of the river Jordan. This census was taken in the same manner as the first, namely, "by their fathers' houses," and was also of the men of the age of twenty and upward who were able to fight (Num. xxvi, 1-50), the total being 601,730 (Num. xxvi, 51), which is 1,820 less than in the first census. Seven tribes show an increase varying from 1,700 to 20,500, and five tribes show a decrease, which varied from 2,770 to 37,100. As a possible explanation of this diminution there may be mentioned (a) the "very great plague" at Kibrothhattaavah (Num. ii, 33); (b) the defeat by the Amalekites at Hormah, in which many Israelites are likely to have been killed (Num. xiv, 45); (c) the 250 men killed as the result of the rebellion of Korah (Num. xvi, 35); (d) the 14,700 killed by one plague (Num.

xvi, 49) ; (e) the 24,000 killed by another plague (Num. xxix, 9) ; and (f) those killed when Sihon, King of the Amorites (Num. xxi, 24) and Og, King of Bashan (Num. xxi, 3) respectively were defeated.

There cannot be any doubt that these two census lists are not the accidental results of a copyist's mistake, but are deliberate. What then is the explanation of the high figures ? One suggestion sometimes made is that the numbers are those of a much later census taken after the Israelites had become settled in Canaan. This might plausibly account for one list but surely not for two, and there is no evidence of any such census. Another suggestion is that made by Flinders Petrie, namely, that the Hebrew word *alaf* (*elef*), which is translated "thousands," should be "families," "tents," or "clans." In this manner of reckoning, the first census would mean 59 families with a total of 5,550 men, and the second census would mean 596 families with a total of 5,730 men. But since the totals, whatever they are, are stated to represent only men of twenty years old and upward who were able to fight, the Levites being excluded, therefore, with women, girls, boys, children and Levites, the total for the whole of the Israelites would have been many times 5,550 and 5,730, and probably at least about five times as many, which would represent 27,750 and 28,650 respectively, a great reduction on the 603,550 and 601,730, but still far too many. Hoskins suggests 100,000.²

With reference to the proposed translation of the *alaf* (*elef*) as "families" instead of "thousands," the following examples in the Bible may be noted :

(a) "heads of the thousands of Israel" (Num. i, 16) has "families" as an alternative to "thousands" in a footnote.

(b) "my family" (Judges vi, 15). A footnote states that the Hebrew is "thousand," and there is a reference to Micah (v, 2) where the reading in the text is "the thousands of Judah," with an alternative rendering in a footnote of "families."

(c) "Now therefore present yourselves before the Lord

¹ W. M. F. Petrie : (a) *Researches in Sinai*, 1906, pp. 208-221 ; (b) *Egypt and Israel*, 1923, pp. 40-46.

² F. E. Hoskins : *From the Nile to Nebe*, 1912, pp. 163-188.

by your tribes, and by your thousands. So Samuel brought all the tribes of Israel near, and the tribe of Benjamin was taken. And he brought the tribe of Benjamin near by their families, and the family of the Matrites was taken.” (1 Sam. x, 19-21.)

(d) “ all the thousands of Judah ” (1 Sam. xxiii, 23) has a footnote giving “ families ” as an alternative to “ thousands.”

During the passage of the Israelites over the Jordan, “ the children of Reuben, and the children of Gad, and the half tribe of Manasseh ” (Joshua iv, 12, 13) are stated to have been “ about forty thousand ready armed for war,” whereas the second census, which was of about the same date, makes them 110,580.

The evidence that the number 600,000 for the men alone at the Exodus, and the figures of the two census lists, are very much too high is as follows :

(a) When the Israelites entered Egypt they were only seventy in number altogether (Gen. xlv, 27) and they remained in Egypt 430 years (Exod. xii, 40, 41; Gal. iii, 17).

The rate of increase of the population of Egypt has been as follows :¹

<i>Census</i>	<i>Annual Rate of Increase per 1,000</i>
1907-1917	12.27
1917-27	10.95
1927-37	11.86
<i>Average</i>	<u>11.69</u>

This means that the population each year was 1.01169 times that of the previous year, and this went on at compound interest. At the same rate of increase the original seventy Israelites would have become 10,363 at the end of 430 years.²

(b) The population of the whole of the Administrative Division, or Province, of Sinai, from the Mediterranean Sea on the north to the apex of the peninsula on the south, was only 15,058 in 1927,³ and only 29,951 in 1937,¹ and there

¹ *Annuaire Statistique*, 1937-8, p. 10.

² I am indebted to Mr. J. I. Craig, of the Ministry of Finance, for this calculation.

³ *Annuaire Statistique*, 1937-8, p. 14.

could not possibly have been either water or food sufficient for the number of Israelites given.

Errata in the Date of the Exodus (P.E.Q., July, 1941).

P. 111. $1,446 - 430 = 1,876$, should be $1,446 + 430 = 1,876$.

P. 111. Last line. XXIIth dynasty should be XIIth dynasty.

P. 112. Last line but one. Quotation mark missing after "Egypt."

P. 113. Twelfth line from bottom. Bracket missing before "including."

P. 117. Note 5, pp. 29-30 should be XXIX-XXX. See Note 2, p. 118. This section of the book quoted is paged in Roman numerals.

P. 118. Twelfth line. "in" should be "In."

A NOTE ON THE NAMES SHEBANIAH, SHEBNA, ETC.

BY A. M. HONEYMAN

HEBREW names compounded with the element שְׁבִי occur from the late eighth century B.C. down to Persian times or later.¹ Noth in his study of *Die Israelitischen Personennamen* (1928) refrains (p. 258) from offering any etymology, and none of the earlier attempts will stand examination. It is the purpose of this note to suggest a derivation which satisfies the demand² for conformity to the general scheme of Israelite onomatology and at the same time vividly elucidates Hebrew ideas of the fatherly care of JHVH.

The Arabic verb تَبَنَّى (*tabana*) means "make a fold in the garment, carry before one in the fold of one's garment." The

¹ The Biblical forms are usually well supported by those of the seals and jar-handles, which are given by chapter and number from Diringer: *Le Iscrizioni Antico-ebraiche Palestinesi* (1934), in the following list: שבניהו 1 Chron. xv, 23. Dir. iv, 5 a and b; v, 15, 20, 61; שבניה Neh. ix, 4, 5; x, 5, 11, 13; xii, 14. Dir. iv, 5 c; Subunuyāma PSBA XV, 15; שבנה 2 Kings xviii, 37; xix, 2. Is. xxii, 15; xxxvi, 3, 11, 22. Dir. v, 57; שבנה 2 Kings xviii, 18, 26; שבני Dir. iv, 6.

² Noth, *op. cit.*, p. 5.

Hebrew form corresponding to שָׁבַן is שָׁבַן; that the Hebrew form is found only in the proper names listed in note 1 above is an accident due to the small bulk of surviving Canaanite literature. שְׁבַנִּיה (י), with its regularly formed hypocoristics שְׁבַנָּה, שְׁבַנִּי and שְׁבַנִּי, thus means "JHVH has borne on his bosom" and belongs to the class of names which give thanks for the fostering help and protection afforded by the deity. Morphologically and semantically the word is parallel to such names as עֲשִׂיה "JHVH has carried" and צִפְנִיה "JHVH has hidden." The name illustrates and is illustrated by Num. xi, 12; 2 Sam. xii, 3b; Isa. xl, 11, xlix, 22; Prov. xix, 24 and xxvi, 15 in the LXX¹; Luke xvi, 22; John i, 18.

A NOTE ON FOOD PRODUCTION IN PALESTINE

By A. M. HYAMSON

THE Report of the Department of Agriculture and Fisheries of the Government of Palestine for the year ended 31st March, 1942, somewhat belatedly emphasizes the increase of production of food—especially cereals and vegetables—in response to the appeals of Government spokesmen. The story of fruit cultivation is however different. The depression in the citrus industry continued. The area of citrus cultivation in 1939, after the depression had already set in, 299,500 dunams had been reduced in three years by 15,100 dunams. Of those groves that survived it was reported that 23,680 dunams were in poor condition and that very few groves were in really good condition. The deterioration was due to lack of cultivation as well as to scarcity of fertilizers and lack of pruning and manuring. The Government, apart from suspending the tax on citrus groves, gave direct assistance to 175,000 dunams of citrus groves, but this assistance seems to have done little more than keep them alive. It is pathetic to read that "Citrus wood found a ready market,

¹ On these two passages see the writer's remarks in this journal, April, 1939, 87-8.

mostly as fuel, and the sale of such wood usually more than covered the cost of uprooting." The sale and export of citrus fruits nevertheless showed an improvement on the previous year. 177,238 cases were exported as compared with 109,803. In addition 14,300 tons, the equivalent of 357,000 cases, were exported in bulk to neighbouring countries. The total value of the exports was under a quarter of a million pounds as compared with almost £2,000,000 in 1939/40 and nearly 4½ million in the previous year. On the other hand the production of citrus derivatives increased.

In the paragraph discussing banana production it is strange to read that the groves were damaged by frost in the Upper Jordan Valley. It must be very exceptional for bananas to be damaged by frost anywhere.

REVIEWS AND NOTICES

The Ladder of Progress in Palestine. By Professor C. C. McCOWN. J. Harper and Brothers. 380 pp. 58 plates and 9 plans, 3.50 dollars.

This book gives a full and vivid picture of the excavations in Palestine since the first great war, and in view of the leading part played by the U.S.A., is rightly written by an American. Dr. McCown's qualifications are due to the fact that for two years he was Head of the American School of Oriental Archæology in Jerusalem during 1929-31, and temporarily took charge again in 1936; he has also edited the results of the excavations at Tell en-Nasbeh, as the excavator died on his way home; he writes therefore with first hand knowledge, nor does his skill in arrangement fall beneath his acquaintance with the facts. After a vivid description of the prehistoric discoveries of Mount Carmel, and the neolithic remains of En-Natuf, and Pere Mallon's finds at Tuleilat el-Ghassul and elsewhere, he proceeds to give two sites, Jericho and Beit Mirsim, which between them cover the development of "homo sapiens" in the land; for Jericho starts with micro-lithic remains, and loses its main importance in the Late

Bronze Age, while Beit Mirsim starts in the Late Bronze Age and continues down to the fall of the Jewish kingdom in the sixth century. He next tackles the question of the alphabet, and the exploration of the Egyptian frontier and the Shephelah; and passes from these to the special work of the American expeditions to Beisan and Megiddo, and the joint task at Samaria. From this we are taken to the minor, but not unimportant digs at Tell el-Ful (Gibeah), and Tell en-Nasbeh (Mizpah?), and other sites on the central range. Jerusalem and our Lord's tomb next follow, with "Neglected Galilee" and its Jewish remains. We cross to the Desert and follow Dr. Glueck and others in their discoveries, and have a full account of Gerasa, with its churches. The last chapter but one brings us down through Byzantine times, with the Es-Sbeita papyri, to the Arabs and Crusaders. The last chapter appropriately ends a very valuable book, of deep interest, with the question "What to believe?"

M. LINTON-SMITH.

What Mean These Stones? By MILLAR BURROWS, Ph.D.
(*American School of Oriental Research, New Haven, Conn., 1941*).

In this work Professor Burrows has set himself the task of illustrating the significance of archæology for Biblical studies, to use the words which he has placed upon his title-page. Writing from the standpoint of a liberal Protestant he expresses his sense of the need for a sober appraisal of the nature, the extent and (as he is careful to emphasize) the limits of the contribution that archæology can make to a better understanding of the Bible. He very properly insists that the true function of archæology is to explain rather than to defend the Bible and that archæological evidence does not affect the spiritual truths which he recognizes as supremely important. Professor Burrows does not very clearly define his views on the subject of inspiration, but it is apparent that he would not be prepared to defend the accuracy of Biblical history in every detail. While fully conscious of the dangers of precarious inferences and the misinterpretation of evidence, he nevertheless claims that the cumulative evidence provides a general confirmation of the Bible, in that "the picture fits

the frame, the melody and the accompaniment are harmonious."

The introductory chapter, after describing present-day methods of excavation, ends with a consideration of the importance of literary sources and so leads on to a chapter dealing with Text and Language. In this very interesting and informative section the author touches on a great variety of topics, notably Egyptian papyri, tablets from Syria and Mesopotamia and the Hebrew ostraca from Tell ed-Duweir, the vernacular Greek and Aramaic of the first century and the part played by oral transmission in the Pentateuch as well as in the New Testament. The salient facts are well brought out; for example, the great value of the papyri not only in confirming the Biblical codices but also in elucidating the history of the text. Again, the text of the Old Testament may be explained, or suggested emendations justified, by reference to phrases or to usages which have become known to us from Assyrian and other documents, while inscriptions, tablets and papyri have all immensely contributed to a better understanding of the characteristics of Biblical Hebrew, Aramaic and Greek. In Chapter III (General Orientation) we are given a description of the geographical and historical setting which covers the ground very thoroughly, with a good deal of attention to problems of chronology such as the patriarchal period and the date of the exodus and, as regards the New Testament, the census of Quirinius and the ministry of St. Paul. Professor Burrows is particularly careful to state divergent views on all disputed questions and never unduly obtrudes his personal opinion. He is not to blame if the reader is left with some feeling of disappointment at finding so many problems still unsolved; nor is it his fault that Palestinian archæology does not lend itself very kindly to the treatment in the two following chapters, which deal respectively with the material and the religious background. The fact is that excavations in Palestine have produced little or nothing of outstanding merit in architecture or the arts, as the illustrations to this volume only too clearly testify. The material is abundant, but much of it is of interest only to the specialist, and moreover has no very obvious connexion with Biblical studies.

These two chapters range over a great diversity of subjects : houses and stables, tunnels and cisterns, town walls and gateways, stone and metal weapons and implements, the development of pottery from the earliest period, agriculture and commerce, weights, measures and coinage, writing, literature and science, painting and mosaic, carving in stone and ivory, seals, amulets and jewellery, textiles and costume are all dealt with in greater or less detail. Then for the religious and ethical background we have discussions of sanctuaries and temples, altars, pillars and minor cult-objects, images, stelæ and figurines, before passing to the sphere of religious concepts and practices and of social organization, and thence to a final chapter entitled "Explanation, Illustration and Evaluation."

Professor Burrows treats of these matters with much learning and with the most scrupulous accuracy ; the only criticism that can fairly be made is that he has been over-conscientious in including a quantity of detail which would be more appropriate to a manual of Palestinian archæology. On the other hand he might perhaps have brought forward more specific instances in support of his typically balanced judgment on the achievements and shortcomings of the higher criticism, as briefly stated in the concluding paragraph of the book, especially as the publication to which he refers (*The American Scholar*, 1938) may not be accessible to many readers in this country. But the author is entitled to limit the scope of his work as he thinks fit, and he certainly deserves the gratitude of every studious reader who is in search of a good grounding in the archæological elements of Biblical studies.

G. M. FITZGERALD.

The Committee acknowledge with thanks the following :
American Journal of Archaeology, XLVII, 2 and 3.
American Journal of Philology, July and October, 1943.
Annual of the American Schools of Oriental Research. Vols. XXI-XXII, 1941-43. Excavations at Beit Mersim, The Iron Age.
The Antiquaries Journal, January April, 1943.
Berytus. Archaeological Studies, Vol. VIII, fasc. 1, 1943.

Bible Lands, July and October, 1943, January, 1944.

The Biblical Archaeologist, September, 1943.

Bulletin of the American Schools of Oriental Research, October, 1943.

Bulletin D'Etudes Orientales. Tome IX, 1942-5.

Expository Times, Vol. LIV, 10-12, LV, 1-5.

Harvard Theological Review, April, July and October, 1943.

Jewish Quarterly Review, XXIV, 1 and 2.

Journal of Near Eastern Studies, Vol. II, 2 and 3.

Journal of the Royal Society of Antiquaries of Ireland, LXXIII, 2, 3 and 4.

Religions, July and October, 1943.

Scottish Geographical Magazine, January, 1944.

Transactions of the Victoria Institute, 1942.

The Authorised Daily Prayer Book with Commentary. Part 2.
By J. H. Hertz.

Early Babylonian Letters and Economical Texts. By John Bruce Alexander. Babylonian Inscriptions in the Collection of James B. Nies. Yale University, Vol. VII.

Who Perished in the Flood? By Edmund Sutcliffe, S.J.

Palestinian Figurines in Relation to Certain Goddesses Known Through Literature. By James B. Pritchard.



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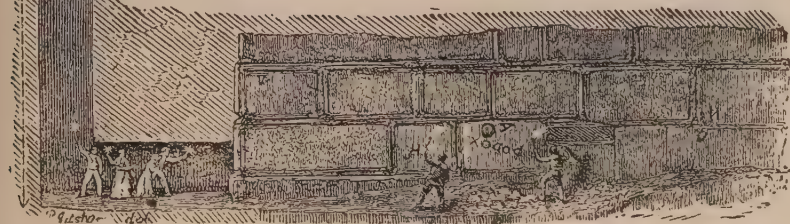
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THE PALESTINE EXPLORATION FUND NOTES AND NEWS

THE long period of darkness and tribulation seems at last to be drawing to a close. There is an unmistakeable light of dawn on the horizon, but we can hardly expect a morning without clouds. Much courage, patience, and resolution, no less than during the past five years, will be needed to face the problems of restoring order to a world in chaos. Not least of those problems will be the equitable settlement of Palestine, which is still full of unrest and forebodings concerning the future.

The universal feeling of horror at the unimaginable atrocities perpetrated by the Nazis and their satellites upon the Jews in Europe and of pity for their sufferings will surely find some practical expression in a generous policy of relief and settlement for this sorely tortured people.

In view of the almost total cessation of archaeological activities it is interesting and hopeful to hear from Mr. Seton Lloyd of excavations at Tell Hassuna in northern Iraq, near Shura on the Tigris, a little south of the site of Nineveh. A burial found in the lowest stratum of the new excavations represents the earliest human remains yet found in Iraq, and goes back to the neolithic period. One important result of the discovery is the proof that the type of painted pottery, known as Samarra ware, discovered by Herzfeld at Samarra, is earlier than the Tell Halaf period. Mr. Lloyd says that the new Hassuna culture has undoubted Western affinities, and that its inception may be dated to the beginning of the fifth millennium B.C. Further reports will be awaited with interest.

The attention of all students interested in the problems of Nomadism may be directed to Sir John L. Myres' admir-

able monograph on Nomadism which appeared in the *Journal of the Royal Anthropological Institute*, Vol. LXXI, pts. I and II. It is of special significance to students of the Old Testament who may be concerned with the problem of the extent to which the nomad origin of the Hebrews influenced the course of their religious and cultural development. The whole question of the origin of Nomadism receives abundant illumination.

In the next issue of the *Quarterly* the reader will find a discussion by Professor G. R. Driver of some of the difficulties which still remain concerning the translation of the well-known so-called "Gezer Calendar." Professor Albright has independently investigated the same problem afresh in No. 92 of the *BASOR*. As always, Professor Albright has fresh light to throw on the subject. An interesting suggestion is that the tablet is not a farmer's calendar but a school exercise. He gives good grounds, historical and epigraphic, for dating the tablet from the brief Israelite occupation of Gezer between 950 and 918 B.C. The article will be of great interest to epigraphists and should be compared with Professor Driver's findings.

In No. 93 of the same journal Mr. T. H. Gaster discusses a difficult passage in the Ras Shamra texts, namely the one relating to the furniture of El in the Epic of Baal, II, i, 31-37. This is followed by a rejoinder from Professor Albright who accepts some of Mr. Gaster's findings and rejects others. Those who are still pursuing the fascinating task of the interpretation of these immensely important texts will turn to these fresh studies with interest. In No. 94 of the *BASOR* Professor Kramer gives new light on the famous Epic of Gilgamesh, the twelfth tablet of which underlies the Hebrew story of the Flood. Professor Kramer shows that behind the Babylonian form of the Epic there lie Sumerian prototypes of the various incidents described in the Babylonian form of the poem. The special interest of this article consists in a translation, translation of, and commentary on, a new Sumerian poem entitled "The Death of Gilgamesh." Professor Kramer thinks that a large palace retinue was buried with Gilgamesh and that if this is correct we have the first mention of "human sacrifice" of the type discovered by Sir Leonard Woolley in

the tombs of Ur, and that Gilgamesh performs the placation rites essential to their comfortable sojourn in the nether world.

In the January issue of the *Journal of Near Eastern Studies* Professor Bowman re-opens the much-discussed problem of the original meaning of the name Jahveh. Using the fresh light thrown by the Ras Shamra tablets on many problems of Semitic philology, Professor Bowman puts forward the very interesting suggestion that the Hebrew root underlying the name Jahveh is akin to the Accadian *awatu* or *amatu* meaning to utter, or to speak. Hence the new meaning of the Tetragrammaton offered for consideration is "He who speaks," a most suggestive meaning. The whole article with its forcible arguments is worthy of careful study. The same issue contains an interesting note by Professor Olmstead recording the identification of the name of Tattenai, known to us from the book of Ezra as a governor (*pahat*) of the Persian province "across the River." The reference is found in a Babylonian document of the Persian period which speaks of a slave of "Ta-at-tan-ni, pahat of Ebir-nari." This invalidates Meissner's old identification of Tattenai with Ushtani, a governor of Babylon and "Across the River", mentioned in another Babylonian tablet of the same period.

A problem of perennial interest to archaeologists is that of the early relations between Mesopotamian and Egyptian culture. A long and comprehensive article by Dr. Helene J. Kantor in the *Journal of Near Eastern Studies* for April of this year entitled "The Final Phase of Predynastic Culture," contains much light on this question. The article is fully illustrated and gives a valuable collection of all the various art types characteristic of this period.

In the *Biblical Archaeologist* for December, 1943, there is a valuable article on the Jordan by Dr. Nelson Glueck, the principal authority on the archaeology of Transjordan. It contains much interesting information about recent identification of biblical sites in the Jordan valley, and about the character of the civilization of Transjordan. Dr. Glueck's work

in this region has been of immense value. Another interesting article in the same issue is by Mr. Philip Hyatt on "The Writing of an Old Testament Book," with excellent illustrations. In the same publication for February, 1944, there is a long and informative article by Professor H. G. May on "Synagogues in Palestine," also fully illustrated. This valuable little publication should be widely known. It is performing the service of popularizing the results of Biblical Archaeology in a scientific and most attractive manner.

In the *Jewish Quarterly Review* for January, 1944, continued in the issue for April, 1944, Dr. Boas Cohen has an interesting and suggestive study of the Relationship of Jewish to Roman Law. The subject of the comparative study of early Semitic law has received much attention in recent years. The publication of a corpus of early Assyrian Law by Professor G. R. Driver and Sir John Miles shortly before the war was an important contribution to this subject, and is to be followed soon by their publication of the Code of Hammurabi, which stands much in need of fresh discussion. The work of such scholars as San Niccolo, Jirku, Alt, Millar Burrows, Saarisalo, and others is well-known, and Dr. Cohen's study is a welcome addition to our knowledge of the subject in a less familiar aspect of it.

The *American Journal of Archaeology* has paid us the compliment of reprinting, in the October-December, 1943, issue, the greater part of Mrs. Kirk's article on the cultural history of Palestine published in this journal, April, 1943.

The *Quarterly of the Department of Antiquities in Palestine*, Vol. XI, Nos. 1-2, contains several articles of interest to the student of Palestinian archaeology. Mr. Iliffe publishes a descriptive catalogue of the cache of pottery lamps and figurines discovered at Jerash in 1933. By this find Jerash has been established as one of the principal centres of lamp manufacture hitherto known. Mr. Baramki describes a hoard of late Roman coins from Yamun in the Jenin district, and Messrs. Kirkbride and Lankester Harding give a very interesting account of the Seven Wells of Beni Murra in Trans-

jordan, and of the cemetery on the western side of the wells. The remarkable graves here described are provisionally dated by the flint implements there found as belonging to the Neolithic period. The authors remark, "The most astonishing feature of the site is that up to the present no other monuments of this type are known either in Trans-Jordan or elsewhere."

A new archaeological journal, five numbers of which have so far appeared, is the *Bulletin du Musée de Beyrouth*. It presents the high standard of scholarship which we have been accustomed to associate with French Catholic archaeology in Palestine. The latest issue so far received, December, 1941, contains among other matter of interest an article by R. P. de Vaux, whose name is already well-known for his work in biblical archaeology. The article is a study of the ritual of the "awaking of Baal" as described in 1 Kings xviii, in the light of material drawn from late classical writers. The article is worth the careful consideration of students of the Old Testament.

SUBSCRIBERS IN PALESTINE who do not send their subscriptions direct to London, are invited to pay them to Mr. C. N. Johns, of the Department of Antiquities, who has kindly consented to act as Hon. Local Secretary of the Fund in succession to the late Dr. E. W. G. Masterman.

BACK NUMBERS OF THE "QUARTERLY." The office of the Fund will be glad to receive unwanted back numbers of the *Quarterly Statement*, and in particular those for years 1922, 1923, 1924, and October, 1934. Kindly address them to the Assistant Secretary at "Branksome," Keswick Road, Fetcham, Leatherhead, Surrey.

AN OUTLINE OF THE ANCIENT CULTURAL HISTORY OF TRANSJORDAN

BY M. E. KIRK

TRANSJORDAN lies east of the River Jordan, stretching from Syria in the north to Aqabah in the south. The Jordan and the Wadi Arabah form its western boundary. On the east the boundary is largely undefined because it impinges on the desert.

Like many desert-bordered lands, its history may be defined as a perpetual conflict between the relatively prosperous, settled communities of the fertile areas, and the hungry nomad tribes of the desert. Through history, at the first sign of internal weakness, the Bedouin have snatched the opportunity to attack in force and enter into possession. Even in modern times, in 1921, 3,000 Bedouin raided Transjordan, and were only driven back to their own home by armoured cars and bombing planes. When in the past, they have proved the victors, they invariably continued their pastoral, nomadic habits, allowing the country to fall into ruin and desuetude. A few may have settled down to some sort of agricultural life, but the majority seem simply to have pitched their tents amid the ruins of the conquered cities, and to have allowed the once-cultivated fields to return to their natural state. Thus when a new and stronger people ejected the Bedouin in due course, their first task was the rebuilding of the ruined sites and the reclamation of the neglected soil.

This state of affairs seems to have happened in Transjordan on what might be called "the grand scale," at least three times. A flourishing Bronze Age civilization fell suddenly about the end of the twentieth century B.C., and for at least 600 years the land was derelict. No sherds of that dark age appear, because nomadic people do not use much else besides skin vessels and gourds. Of city life there was none. Then at the beginning of the thirteenth century B.C. a new, iron-using people appeared, drove out the Bedouin and rebuilt the cities.

Boundaries were set, and the kingdoms of Edom, Moab, Ammon and Gilead rose to wealth and power. But later, weakened by perpetual warfare, they too fell before the same attack from the desert, at the end of the sixth century B.C., and the neglected lands slept for 300 years. Then once more a new civilization rose, flourished, and lasted until the end of the medieval Arab period after which it fell for a similar reason, and the land remained more or less derelict until the beginning of this century.

As a result of these repeated interruptions in the continuity of development, practically no artificial tells were formed whose history could be conveniently studied over a long period of occupation. Most known sites appear to have lasted less than 500 years, after which they either fell into decay or were destroyed. Indeed so little remains of many cities that it would not be possible to reconstruct them. Fortunate it is for archaeological research that broken pottery has no commercial or decorative value. For this reason alone it has always been suffered to remain where it fell, and now provides mute but reliable evidence of the culture and foreign contacts of its day.

With the exception of a few sites such as Gerasa, Petra, Balû'ah and Ezion-Geber, nothing has so far been done in Transjordan in the way of systematic excavation; but of recent years there has been a good deal of careful exploration, and some thousands of sites have been found and recorded. Indeed it is from Professor Glueck's interesting book on his Transjordan explorations that much of the material for this paper has been obtained.

Throughout the millennia the culture on both sides of the Jordan seems to have been much the same in each period, both areas developing on much the same lines, and being exposed to the same sort of contacts. The only thing which appears to have been exclusive to Western Palestine is Hebrew monotheism. There is, so far, no evidence that it ever crossed the river. However as, during the most powerful period of the Hebrew Monarchy, a large part of Moab was subject to, or paid tribute to the Israelite kings, and later Edom over-ran a part of southern Palestine, it is possible that excavation may cause the present opinion to change in the light of new know-

ledge. But it certainly never seems to have become the official religion there.

As in western Palestine, there is evidence of the early appearance of Paleolithic Man. Though as yet there has been no definite discovery of a paleolithic cave dwelling, flints from the very earliest periods have been picked up in Moab, Edom and Ammon. When opportunity occurs for systematic search, there is little doubt but that evidence will be forthcoming to show that the same paleolithic and mesolithic cultures existed in Transjordan as elsewhere. At Kilwan, in the desert of S.E. Transjordan, there has been found an abundance of rock drawings dating from at least mesolithic times down to a comparatively modern date. One of them represents a narrow-headed, long-horned animal, possibly an ox, into whose side a squatting human figure with up-raised arms is thrusting a spear. These squatting human beings with up-raised arms are very characteristic of early rock-carvings of north Africa and Spain, and this particular figure closely resembles one found at Fezzan. On adjacent rocks are the well-executed outlines of ibex, with the burin marks clearly visible, while the representation of a seated human pair in close embrace is very similar to a limestone statuette of Natufian origin found near Bethlehem in the Wadi Khreiton. Under many of these carvings are the faint outlines of yet earlier work; while over others are superimposed drawings of later date. This suggests that from the very earliest times down to the Christian era, the locality must have been a general meeting ground for herdsmen and hunters at appropriate seasons of the year.

Little is known of the Neolithic period, and the Chalcolithic Age is so far mainly represented by " Ghassulian " pottery, so named because it was first found at Tuleilat-el-Ghassul where there are also rock-drawings of similar date. This beautiful pottery shows an advanced technique, befitting a people already well along the path of civilized culture. It has a fine creamy slip, decorated with motifs in dark paint which seem to have some affinity with the Hâlaf Painted Pottery of Mesopotamia. The shapes much resemble those of the same period in western Palestine, with rimless mouth, scalloped decoration, and loop, lug, ledge and knob handles. Beautiful neolithic flint knives are found with it, and the queer fiddle-shaped

stone figurines of the Mother Goddess, so common in the Neolithic and Early Helladic strata of Crete and the Cyclades, as well as in Cyprus, Asia Minor, and, occasionally, in Mesopotamia. The examples from Ghassul and Wadi Gazzeh represent the furthest south that these figurines have yet appeared. Of the people themselves we know nothing, except that they must have been the usual mixture of hunters and primitive agriculturists, living in tents and groups of mud huts on hill-tops which were encircled by strong protecting walls. The Troglodyte cave dwellers of Palestine appear to be unrepresented east of the Jordan.

As in Palestine, the late Neolithic and early Bronze Age peoples must have for some time existed together, borrowing from each other ideas of industry and religion. Large dolmen fields, stone circles, and sacred monoliths of the period remain to-day in Transjordan in greater numbers than in Palestine. They testify to the fact that the same religious beliefs prevailed on both sides of the Jordan. Near El Lejjun there is a series of monoliths, some still standing—and high on a hill at El Quseir there is a large dolmen on a circular base. Another such is at Arqub Ibn Hadad, and there are various large dolmen fields at El-Megheirat in Gilead and elsewhere.

The Bronze Age brought with it the vigorous influx of Amorite people, who flooded over the Jordan Valley into Palestine and created there the first strongly fortified hill cities. In Transjordan, mostly in the area later occupied by the kingdom of Moab, they also chose the best strategically situated hills and crowned them with heavily fortified independent cities, as such as those of Khirbet-umm-Sedeirah, El-Muddowwerah, El Lahun, Lejjun, Kom Yajuz, Ader and El Medeiyyneh, whose thick enclosing walls, buttressed by great towers, followed the natural line of the hilltop, with sometimes, as at El-Medeiyyneh, a wide moat and dry ditch half way down the hill. The city lay-out inside seems to have followed much the same plan as in Palestine. Mud-brick houses clustered thickly against the inner side of the protecting walls; streets were mere narrow, unpaved lanes, and the large open space near the main gate did duty for a market-place, law-court, military exercises, religious processions, and anything else which demanded the gathering together of the

population. In times of siege water supplies were assured by means of large tunnels from inside the city, connecting with adjacent or subterranean springs in the same manner as those in Canaanite fortresses. There is such a tunnel still to be seen at Shobek, and others elsewhere.

The largest and most important towns seem always to have been strung out from North Gilead to Wadi el-Hesa, along the great North-South Highway which bisects the fertile Transjordan plateau from Syria in the north to Aqabah in the south—with branches east to Sinai and the Arabian Peninsula, and west to Gaza via Qurneh—following the natural warp made by large and small stream beds, so that water is available along the route during most of the year. Used first by the wandering Paleolithic hunters who followed the migrating herds along this well-watered track, it gradually became a highway of the very first importance for the transit of commerce and armies. That its history as a major roadway began as early as the twenty-third century B.C. is established by the large Bronze Age cities along its route. From that period down to the present day we can trace its unbroken history. Biblical literature records that the children of Israel begged permission to traverse the "King's Highway" through the kingdom of Edom and Moab, promising to pay for all they ate and drank on the way. From Arabia to Damascus, from the Euphrates Valley to Egypt, and overseas to the Mediterranean lands, and to India and to China, the rich commerce of the nations flowed ceaselessly back and forth along the great trade routes of Palestine and Transjordan, bringing wealth and power to those cities and kingdoms fortunate enough to sit astride them. Most of the wealth of Solomon, of the Edomites, and of the Nabataeans undoubtedly came from their control of these highways and the extraction of customs dues from the great caravans passing ceaselessly north and south, east and west with the merchandise of intertrading kingdoms. In the second century A.D. Trajan entirely reconstructed the main Transjordan highway, making it into a fine, paved, double-track roadway with raised lines of stones down the middle and each side, and marked with milestones throughout. As is usual with the excellently made Roman roads much of it remains, and the route is still known as the King's Highway—Et Tariq-es-

Sultani. To-day the government is making it into a fine vehicular road which largely follows Trajan's road, and still bears, as of old, the ceaseless traffic of the Near East.

Such sites as have been explored establish the fact that these early people were skilled in agriculture, the slopes of the hills below the cities, and the steep banks of dry wadis still bear the remains of terraced fields which produced crops so abundant that later Hebrew writers spoke lyrically of a land flowing with milk and honey. They developed the technique of water conservation to a pitch surpassed only by the Nabataeans of the Hellenistic period.

There is also some evidence of the working of copper mines in the Wadi Arabah—that great, arid rift between the Dead Sea and the Gulf of Aqabah which now-a-days constitutes the boundary between southern Palestine and Transjordan. The mining sites of Feinan, Khirbat Nahas, and Khirbet-umm-Sedeirah all show traces of Bronze Age occupation. But if they did exploit these mines it was not on a scale comparable with that of the following Iron Age. Indeed there is no direct evidence that they did so at all, though we do know that as early as the third millennium B.C. the Old Kingdom Pharaohs of Egypt were working the copper and turquoise mines of Sinai, and extending their trade into Palestine. It is possible therefore that the Wadi Arabah mines were also known and worked.

The general standard of life in the Transjordan cities largely resembled the Bronze Age culture of Palestine. Each city seems to have been a prosperous, independent, self-supporting, feudal city state, owning no allegiance to a higher authority, and, judging by the formidable thickness of the defensive walls, not always on the best of terms with its neighbours. Religious beliefs appear to have included the worship of standing stones in High Places, and of deities who were guardians of, and lived near, wells and springs. Khirbet Iskander, Ader, el-Megheirat, Ain Lejjûn and Bab-ed-Drâ, all contain menhir circles or large monoliths, sometimes associated with dolmen fields. Amulets were as popular as elsewhere and of the same type. Much good, rather coarse, handmade pottery was used, whose shapes, including those with wavy ledge and lug handles, resemble Palestinian pottery types of

the same period. Indeed, except for differences of texture in the clay, the two are indistinguishable from each other. Beautiful double-edged flint knives typical of the Early Bronze period have been found in hundreds at Bab-ed-Drâ and El-Mezra'ah and only went out of use both in Palestine and the Transjordan when the use of copper and bronze became more common.

We know nothing of the people themselves, except that they seem to have been of Semitic origin. No inscription has yet come to light anywhere which tells us what they called themselves, though in Genesis xiv, 1, we may have a legendary account of some of the towns and their rulers. It has been suggested by Professor Glueck that from this legend we may perhaps learn the reason for the sudden and complete collapse of the Bronze Age civilization at the height of its prosperity, somewhere about the twenty-third century B.C. It may be that Chedorlaomer, King of Elam marched his armies so swiftly along the King's Highway, from Ashtaroth and Ham in the north to El-Paran in the south, that the disunited cities had no time to prepare a unified defence and fell one by one before his attack. Whatever the cause of the downfall, an examination of the Bronze Age sites of Transjordan has so far told the same story of a ruin so sudden and devastating that the razed cities were never rebuilt, and for 600 years the whole area had no further history.

The absence of pottery sherds during this gap seems to indicate that the Bedouin of the eastern desert were not slow to seize their opportunity. They entered and took possession but did not change their pastoral habits. Living in skin or woven hair tents amid the ruins of the cities, and using gourds and utensils of skin, they have left no trace of their sojourn. Having no interest in agriculture they allowed the once-fertile terrace fields to fall into decay, browsing sheep and goats where the vineyard and the cornfield once flourished. During that period they must have been strong enough to frustrate the attempts of any settled communities to enter the country, and even the Horites (who, according to Biblical tradition, entered the land before the Edomites, but of whose existence there is as yet no archaeological evidence) must have been simply a nomadic tribe which was later ejected

or absorbed by the Edomite people. On the Egyptian lists there is no mention of any town in east Palestine during this gap, though on the records of Merneptah (1225-1215 B.C.) and of Rameses III (1195-1167 B.C.) Edom and Seir are mentioned.

It was not until the thirteenth century B.C. that there came an awakening. From the south appeared a new agricultural people who forced an entry and drove the Bedouin back to their desert home. By what was probably natural tribal grouping, they divided themselves into separate communities which soon grew into the powerful Iron Age kingdoms of Edom, Moab, Ammon, and the two kingdoms of the Amorites. All were marked off from each other by the deep and natural boundaries of the Wadi Hesa, Wadi Mojib (River Arnon), Wadi Zerqa (River Jabboq), and Wadi Yarmuk. Edom took the southernmost portion from the foot of the Dead Sea to the Gulf of Aqabah, with Bozrah as her capital (identified perhaps with Tawilan near Petra), and became a powerful military nation. Moab took the middle portion along the eastern side of the Dead Sea, with Ammon on her eastern flank; while the two Amorite kingdoms, divided by a narrow corridor, followed on and extended eventually north of Damascus.

Within their boundaries these kingdoms grew and flourished, the excavation of the Iron Age city of Balû'ah showing that their chief period of development was between the thirteenth and eighth centuries B.C. Many of the earlier Bronze Age sites, because of their strategical positions, were cleared of their debris and rebuilt. Many new cities were also founded. A striking decrease in the thickness of the protecting walls, as compared with those of the Bronze Age, gives evidence of a strong central authority, and a national unity which made them less vulnerable to attack. But along the eastern frontiers, facing the ever-present Bedouin threat, were still erected very strong fortresses and watchtowers whose vigilant sentries were within sight of each other so that smoke or fire signals could be transmitted in case of need.

Towns and villages were now well-built of stone; the chief ones being as before mainly along the trade routes, the revenue from which brought prosperity. The terraced fields were reconstructed, and the art of water, soil and forest cultivation

brought to a pitch far beyond even the Bronze Age standard, so that the fertile earth brought forth corn, oil and wine in abundance. By the time Moses brought his wandering people to the frontiers of Edom and asked passage to the Promised Land along the King's Highway, these kingdoms had become highly advanced, well-organized, strongly integrated nations, whose powerful rulers were able to refuse entry when so disposed. Thus, though Moses promised that his people would do no damage and would pay honestly for everything they ate or drank on the way (Numbers xx, 14-21), his plea was rejected and he was forced to make a detour round the kingdoms of Edom and Moab until he came to the little corridor kingdom of Sihon. Here he was again refused permission (Numbers xxi, 21-31), but the Israelites were sufficiently numerous to overcome the armies of the king and so effect an entry into the Promised Land. Thus from this evidence it would appear impossible for the Exodus to have taken place earlier than the twelfth century B.C.

Beyond Biblical accounts, little or nothing is so far known of these Iron Age people of Transjordan. That they must have been wealthy and powerful, playing a full part in the affairs of the Near East, seems inevitable when one considers the amount of tribute that even in the days of their decline they were able to pay to Esarhaddon, King of Syria. Edom paid twelve manas of silver—two more than Judah—Moab paid one mana of gold, and Ammon paid two manas of gold. Moab seems to have been always the weaker kingdom, being for some time subject to the Hebrew monarchs after conquest by David. Indeed it was not until the time of Ahab, that Mesha, the Moabite king, was able to throw off the yoke, and commemorated the fact in a large stele at Dibîn. Naomi and her husband went to live in Moab, and her sons married Orpah and Ruth, both Moabite women. Edom and the Amorite kingdoms seem to have remained more or less independent until the days of their decline and their final collapse. Ethnically all these people were of Semitic stock, and judging from figurines which have been found at El Medeiyyneh and elsewhere, they probably had full lips, short noses, round cheeks and large prominent eyes under thick brows. In the head of a figurine found at El-Medeiyineh we may have the representation of a Moabite king. The

features are the same, the hair braided and hanging down each side of the face but exposing the ears which are large. The beard is pointed, and on the head a linen or woollen headdress, probably striped, is held on by an *'uqal* tied in front with a bow knot. The headdress hangs down the back behind the ears. A similar headdress is on figurine heads found at Kreibah, and Balû'ah.

The high cultural development of the kingdoms along similar lines, also points to a close tribal relationship. The inscription on the Moabite stele of Mesha, cut in beautifully executed Old Hebrew characters, suggests a high literary and artistic ability. Excavation may presently reveal the fact that domestic furniture and the amenities of daily life were quite as luxurious in Transjordan as in the Iron Age cities of Palestine and Syria. But though in the Bronze Age there was little or no difference in the pottery on either side of Jordan, this was not so during the Iron Age, as it is likely that the Iron Age pottery of Edom and Moab, in its early stages, was contemporary with the late Bronze period of Palestine, not later than 1300 B.C. Trade along the Highway was bringing cultural influences from Syria in the north and Arabia in the south, and because of these influences the Transjordan people developed a distinctive pottery of their own which is easily recognizable. First found at El-Medeiyineh, it is of well levigated clay with a highly polished slip in rich red or brown, decorated with mathematically exact bands or lines of dark brown, while sometimes the red slip is put on in horizontal bands divided by dark brown lines, between which are white bands placed after firing. The pottery is very reminiscent of, though not identical with, the Cypro-Phoenician ointment juglets of Early Iron Age I, and Early Iron Age II in Palestine, and one example was found at Beit Mirsim. Larger vessels of a coarser clay carry the same designs in rougher style. At Sa'lîyeh, Jameil el Libb, Za'ferân and Jâwa similar sherds have been found. A characteristically Edomite style of pottery is well made on the wheel, and is of a creamy texture with a highly polished white slip decorated with two parallel horizontal bands of dark brown, having deep red zig-zag wedges above the upper band, and black vertical bands under the lower one.

But on the whole, both sides of the Jordan, being of the same

ethnic stock, developed together, speaking and writing much the same west Semitic language and worshipping the same fertility gods. A stela at Balû'ah of the twelfth century B.C. with an inscription too worn to read, shows a Moabite in Egyptian dress making offerings to a Moabite God wearing a bastard version of the double crown of Egypt, while behind him stands a Goddess wearing the feathered headdress of Amon. Thus it is evident that Egyptian ideas and culture, possibly Egyptian Gods also, must have spread into Transjordan as well as Palestine; though judging from the stela they were far from being properly understood.

It was during the Iron Age that the iron and copper mines of the Wadi Arabah began to be extensively worked. At Feinan (the site of Punon? Numbers xxxiii, 42) and Khirbet Nahâs, Mene'iyah, Ezion-Geber, and other sites, can still be seen the ruins of large mining towns, whose fortress walls, buildings, miners' huts, smelting furnaces, and black heaps of copper slag indicate intense activity. The furnaces are of two-storeyed type unique in the Near East, the vents in the lower storey perhaps providing a natural draught from the strong winds common in the Wadi Arabah. Some of the large buildings may have been smelters with several furnace rooms.

The larger mining sites, such as Khirbet Nahâs, Mene'iyah and Ezion-Geber suggest in their grimness large prison camps, with walled enclosures for the housing of forced labour. There are references in patristic literature to mines at Feinan worked by slave labour recruited from Christians and criminals; and it seems very likely that the Edomites and the Israelites both followed the custom of mining with slave labour composed of criminals and prisoners of war, and perhaps with men also obtained by the imposition of the *corvée*. There is no water at these forbidding sites, and they must either have been worked only in the Spring, or else, as in the Sinai mines, food, water and fuel were regularly brought to the camps by trains of donkeys. Egyptian records of the turquoise mines of Sinai refer to 500 donkeys and forty-three peasants who maintained a steady supply to camps there. In the Wadi Arabah probably the same method was resorted to, the animals returning with loads of partly smelted ores. Since there are no trees, and but little scrub in the Wadi, the fuel

used must have consisted of charcoal burned on the heavily wooded slopes of the Edomite hills and brought to the mines.

Most of the mining sites have some slight evidence of an origin earlier than the Iron Age, but it was Solomon who built the smelting and port town of Ezion-Geber at the north end of the mouth of Aqabah. Needing an outlet to the east, with a Red Sea harbour for his fleet of Tarshish ships manned by Phoenician sailors, he seems to have planned and built the town within a few years. Here too, smelting by forced labour was the rule, and excavations carried on from 1938-40 revealed a large and flourishing town, with houses of mudbrick, and an elaborate complex of industrial plant for the smelting of iron and copper, and the making of metal objects for export. Fish hooks, lance and spear heads, daggers, bowls and fibulae of copper and iron were all made there, as well as beads, cloth, baskets and pottery, some of the last being of a type peculiar to Ezion-Geber. About one and a half acres in extent, the encircling walls were twenty-six feet high and sixteen feet thick, with the usual buttresses. The main southern gateway consisted of three gates, one behind the other, the first two opening into sets of guardrooms behind each gate and on each side of the entrance. The third gate, after a sharp right-angled turn, opened into the main street and a large market square. Small though the town was, it was tremendously strong, its gateways reminiscent of those at Carchemish, Megiddo and Lachish. From here, and from Tarshish, sailed Solomon's ships carrying copper and other merchandise far and wide; returning after a round trip of three years with gold, silver, ivory, apes and peacocks, red sandalwood, precious stones, spices, and other rich products from India, Africa and Arabia (2 Chron. ix, 21). It is suggested that the Queen of Sheba came on a business trip to Solomon to arrange trade agreements for the exchange of the merchandise of Arabia for the products of Palestine, and copper. (1 Kings x, 1, 2, 10). From 1 Kings x, 13 it seems that the results of the conference were satisfactory to both parties. Nor was trade with Egypt neglected, for in Ezion-Geber were found objects of carnelian, agate and amethyst, crystal beads, faience amulets, seal impressions, and cups, plates and buttons of Egyptian alabaster.

That Solomon and his successors worked the mines of the

Wadi Arabah is not yet proved, but the size of the mining sites, the extent of the workings, and Solomon's lavish use of copper in the building of his palace and the temple suggest that he did so. The building of Ezion-Geber, conveniently situated to the mines, also gives colour to the idea. That the Arabah mines were worked long before Israel knew of them is also likely. The Kenites, who were itinerant smiths, may have been the people who first exploited them, passing on the knowledge to the Edomites and Israelites. Moses married a Kenite woman and it is from her people that he may have learned where to get the metal to make the brazen serpent commanded by God for the cure of the plague of serpents (Numbers xxi, 6-9). The mines of the Wadi Arabah are in the vicinity of Mount Hor on the way to the Red Sea. Tubal-Cain was a Kenite and forged copper and iron instruments (Gen. iv, 22).

The cause of the long and bitter fighting between Israel and Edom is uncertain. It is suggested that the Wadi Arabah mines, and the access to Arabian and Red Sea trade had something to do with it. By the time Israel turned her attention from eastern trade and began to concentrate on the Mediterranean, the power of the Transjordan kingdoms had been irretrievably weakened by war. Falling victim to the Assyrians, Babylonians and Persians, the crash came at the end of the sixth century, and the great kingdoms of Edom and Moab vanished for ever; though it is recorded that many of the Edomites settled in south Palestine, to be known later as the Idumaeans. For the next 300 years there occurs another gap devoid of any cultural history.

The next people to appear on the scene were the Nabataeans. Entering first as purely nomadic tribesmen working up from somewhere in southern Arabia, they eventually dislodged the Bedouin from the whole of the old Edomite territory. Diodorus records that in the fourth century B.C. the Nabataeans were nomadic Arabs living in tents and abhorring wine. Though they were not interested in agriculture they were already indulging in trade with goods from south Arabia. But after that date they seem to have abandoned their pastoral life, and to have settled down and given their serious attention to agriculture and trading. So much so

that by 100 B.C. nothing was left of their earlier simplicity. They had become a highly organized, culturally advanced, wealthy people whose boundaries had rapidly spread northwards, until by Herod's time they impinged on Syria. They also controlled the lower part of southern Palestine, and their kings had to be reckoned with in international affairs. Herod, himself the son of the Idumaeen Herod the Great, married the daughter of the Nabataean king Aretas IV (9 B.C.—A.D. 40) and his divorce of her resulted in bitter quarrels and war between the two kingdoms. Paul of Tarsus also seems to have annoyed Aretas, because by preaching in the synagogues of Damascus he upset the Jews and the public peace. The governor of Damascus sent to arrest him and he escaped by the aid of friends who lowered him down outside the city walls in a basket (2 Cor. xi, 32).

Nabataean names which have survived on inscriptions and in papyri show an Arab origin, though the Nabataeans spoke and wrote in both Arabic and Aramaic. Later, Greek also became common. They established their capital at Petra, that amazing city cut out of the natural rock which is too well-known in every modern guide book to need description. Situated at the junction of the main trade routes between Syria and Arabia, it became the clearing-house for the commerce of the Near East, chiefly incense and myrrh. The products of Arabia, China, Africa and India were carried by Arabian caravans forced to converge on Petra, and from that city they were re-exported to Egypt, Greece, Rhodes, and Italy though the sea-port of Gaza in Palestine, and along the King's Highway to Syria and Persia. Goods were also sent direct from Nabataean ports on the Red Sea, notably Aila on the Gulf of Aqaba which superseded Ezion-Geber, and from centres in Arabia. A contemporary of Zenon records that it was the traffic with the Nabataeans which made Ptolemaic Syria and Phoenicia "rich in gold." In a few short centuries the simple nomads had developed into a people whose culture, wealth and influence were perhaps greater than that achieved by any of their predecessors in Palestine and Transjordan. As our knowledge of them grows, we see them to be a predominantly trading nation with a large population, and an efficient military organization to protect its interests. The old Edomite cities and fortresses were nearly

all taken over, rebuilt and strengthened. Fixed posts to guard the caravans were erected along the forbidding Wadi Arabah, and other places where attack from the Bedouin might be looked for. Long and intricate lines of frontier posts and watch towers, within sight of each other and interspersed with large key fortresses, guarded the boundaries; especially those on the eastern desert and in the region of the rich, cultivated plateau lands once held by Edom and Moab. They seem to have adopted the military organization and methods of defence worked out by the Edomites, and to have improved and enlarged on them. It is likely that many of the Edomites still lived in some parts of their one-time kingdom, and those settled in Palestine probably also co-operated with the Nabataeans and intermarried with them. On practically every known Edomite and Moabite post and fortress, from the top of Neqb esh-Shtar to Wadi Hesa, and from Wadi Hesa to the north-east corner of Moab, Nabataean sherds are found. The earlier buildings seem to have been taken over, renovated and perhaps a superstructure added; or new buildings were erected next to, enclosing, or near the older ones.

A certain amount of mining was continued, and in Roman times some of the mining cities were given amenities in the form of public baths, and amphitheatres where organized games and spectacles could be held.

Though the main national wealth undoubtedly came from their trading interests, the Nabataeans also devoted considerable attention to agriculture, bringing the art of water conservation to a pitch never attained before or after. Cisterns were cut in the rock wherever practicable, and stone and cement walls built across rifts in the mountain rock, so that water draining into them from the spring rains was collected into a reservoir at the foot. At Ard-el-Beida the water draining down a high perpendicular-faced hill was deflected into a cistern at the foot; and at Wadi Ramm there still remain the dammed-up fissures. These methods when carried out on a large scale enabled vast quantities of water to be stored for the dry months. No other people pushed cultivation so far into the desert as they did, and after the Byzantine period the art was lost.

Unlike that of the other nations of Palestine, Nabataean architecture was highly individual. The vaulted chamber is

characteristic of Nabataean buildings, and they seem to have transmuted Greek and Parthian ideas and motifs into an idiom of their own, in particular the horned capital derived from the Ionic capital of Greece. The prevalence of grapes and vine-leaves in architectural decoration strongly suggests that the old-time abhorrence for wine no longer existed. At Petra we can still see the amazing skill with which palaces, dwellings, tombs and temples were cut out of the living rock, decorated with beautiful mural paintings and made into edifices of beauty and endurance. In art, ceramics, and possibly literature (though so far we know of none of the latter that has survived beyond inscriptions and papyri business contracts) they were a highly-gifted race, besides being expert tradesmen, farmers, engineers and architects. Due to their wide influence the religion, language, architecture and art between 200 B.C. and A.D. 200 became more or less the same from the south Transjordan to Syria. Nabataean pottery had no parallel for fineness of quality anywhere east or west of Jordan. Cups, saucers, shallow dishes, jugs and bowls are all of amazing thinness and fragility, and of beautiful workmanship; the painted designs having no known affinity with any other pottery, though some resemble the faience pots from Nippur, and in fabric are as fine as the thin, yellow unglazed Achaemenid pottery of Ur. The clay is reddish-brown to red or drab, and the designs are usually stylized floral or leaf patterns in reddish-brown, superimposed over very delicate parallel lines which may represent veining. Sometimes the leaves are solid in colour, and the floral motifs natural in treatment. Palm-leaf motifs are also common. A fine ribbed ware was also used, as well as fine sigillata either plain or with bands of fine rouletting. Thousands of sherds are found on all Nabataean sites, south of a line from the north end of the Dead Sea through Madeba to the desert. Professor Glueck suggests that the lack of sherds north of this line is due to the fact that the northern part of the Nabataean kingdom was reached, not through northern Transjordan, but through the Wadi Sirhan, which has not yet been explored. When it has been explored we may discover how the Syrian part of the Nabataean kingdom was developed.

The religion of the Nabataeans was based on the usual

agricultural fertility rites, which took on a Greek character. The main deities were Allat, the great Moon-Goddess, and Dhu-Shara (Dushara-Dusares-Dionysus), the Sun God, worshipped in the form of obelisks, or in the latter case as an unhewn, four cornered black stone. Atargates, Goddess of grain, foliage, fruit and fish, was usually represented with a face and body veiled with large leaves—resembling in this a figure of Zeus found at Puteoli north of Naples. Her consort was Hadad (or Zeus-Hadad), a thunder god represented in architecture as an eagle with a thunderbolt. Tyche, Goddess of Fortune, was associated with zodiacal signs. In the beautifully carved temple at Khirbet Tannur a whole pantheon of Nabataean deities is represented. These have much in common with the Syrian gods of Baalbek, Palmyra, Dura-Europos and Ascalon. In the southern Transjordan, temples of Mesheirfeh, Kerak, Khirbet-Derih, Dhat Ras, Aineh, Qasr Rabbah, Petra and Ramm these deities were also worshipped. Like most of the religions of Palestine, there were contained in it elements of the old Semitic worship associated with sanctuaries and High Places, standing stones and dolmens. Some temples seem to have had an inner shrine which enclosed an earlier altar, as did the great temples of Beth-Shan and elsewhere in eastern Palestine. A pavement round a simple box-like shrine at Khirbet Tannur resembles in some ways the Dome of the Rock at Jerusalem, or the Ka'ba at Mecca. The rooms off this temple were well-paved, and were inhabited by the temple servants, besides providing lodgings for pilgrims. Stone benches ran round three sides of one room suggesting that sacrificial feasts were an important part of the temple rites. Similar triclinia in the temples at Petra suggests that the same ritual was observed there. Cult meals were also common in Syria, at Antioch, Dura-Europos, Delos and Khirbet Semron, indicating that the practice was general throughout the Near East. There is evidence at Petra and Ramm that serpent-worship formed a part of the Nabataean religion. Stairways in the temples there leading under a sacred rock, seem to have been connected with a chthonic cult, and resemble the ritual entrances to the underworld known among the Greeks and Babylonians.

With the rise of Roman power in the Near East the power

of the Nabataeans correspondingly waned. By the beginning of the second century A.D. the conquests of Trajan brought about its downfall. Thereafter the central authority was Roman, and the Nabataean kingdom was administered under puppet kings and local governors. The intricate system of defence was retained by the Romans, who also carried on the profitable trading activities and to a certain extent kept up the Nabataean system of water and soil conservation. Latin cultural influences spread, and life on both sides of the Jordan wholeheartedly adopted the luxuries and civilization of Rome. Even the old Semitic deities changed their names and clothes and appeared in Roman guise.

What Roman influence did to the Near East is seen in the great cities of the Decapolis, of which Gerasa in Transjordan was one of the greatest. Said to have been built first by Pompey in order to capture the Persian and Syrian trade from the Nabataeans of Petra, it swiftly grew to a magnificence which was clearly demonstrated when the ruins were excavated in 1933-5. Shops, theatres, baths, amphitheatres, temples, fine houses and colonnaded streets created a picture of luxury and prosperity. A huge hippodrome had, besides the main entrance, six side ones, and the intersection of streets was straddled by great tetrapylons, beneath whose arches were placed shops and dwellings, faced by broad terraces. It was indeed the rich trade of Gerasa which brought the prosperity of Petra to an end, and it was not until after Byzantine times that Gerasa fell into decay in her turn.

Of the Byzantine period in Transjordan we know little, the Byzantine Emperors took over the Nabataean cities and carried on the agricultural technique as well as the trading. At Gerasa there are the remains of a great church, while at Mount Nebo another fine church has been excavated. Many large Byzantine sites are dotted over the southern portion of Transjordan, while at Aujir-Hafir, a Nabataean-Byzantine town in the Negeb which though not actually in the Transjordan area was nevertheless included in the Nabataean kingdom, was discovered a large mass of papyri of the time of Flavius (565-578 A.D.) which throws valuable light on Christian Palestine of the sixth century A.D.

It was during the Byzantine administration that the custom

grew among the more zealous Christians of adopting an anchorite life. The more inhospitable parts of Transjordan were ideal for this purpose, and there appears to have been an influx of anchorites who took up their abode there. Ensnconced in cave or cell, far from the distractions of the world, they scourged and scorned their God-created bodies in the endeavour to find God. Religious communities also settled up and down the country, tending the sick and giving food and shelter to travellers. Christian symbols and inscriptions can still be seen in remote parts, as well as the ruins of monasteries and churches.

Throughout the first half dozen centuries A.D. Transjordan continued to flourish, but with each passing century it lost a little of its prosperity. With the downfall of the Byzantine domination all knowledge of the ancient arts of water and soil conservation were lost, never again to return. Trade continued to bring in wealth during the medieval Arab administration, but after that Transjordan entered upon its third, and it is to be hoped last period of darkness. The nomad wandered again where he would, and gradually all record of the ancient cities was lost, their sites becoming levelled and ploughed over by primitive peasants. But with the dawn of this century there are signs of another awakening, and the hope that the future may be as vivid and prosperous as the past.

THE FOUR NORTH WALLS OF JERUSALEM

BY LT.-COL. N. P. CLARKE

PAPERS appearing in the *Quarterly Statements* since the finding of the Sukenik-Mayer wall in Jerusalem show that some, at least, of the adherents of the Second wall theory still believe that that wall ran south of the present Damascus Gate.

The Rev. Garrow Duncan wrote that in his view the problem of how the Second wall ran, and of the Holy Sepulchre, was scarcely affected by the finding of the new wall.¹

Dr. Albright suggested that by regarding the present north walls as those of Hadrian, the new line did not affect the question of the Holy Sepulchre.²

Père Vincent took another line.³ He held to the earlier view, i.e., that the present north walls were those of Agrippa, and the newly discovered ones something else—possibly the work of Bar Cochba. He referred in detail to the abundance of Hebrew stones in the present north walls and claimed them for the Third Wall.

The latest contribution to the subject is provided by Hamilton's excavations at the Damascus Gate; and because he could find nothing earlier than third and fourth century sherds (except a few first century ones) he concluded that no wall existed at the Damascus Gate before the first century.⁴

The tendency of the above is clear. The Second wall theory after the shock administered to it by the discovery of the Third wall, is being nursed back to health. Something should be done about this, for it ought to have been buried unwept and unsung.

It seems to me somewhat extreme to suggest, as Mr. Duncan did, that the problem remains as it was before.

The theory propounded for this wall in the nineteenth and

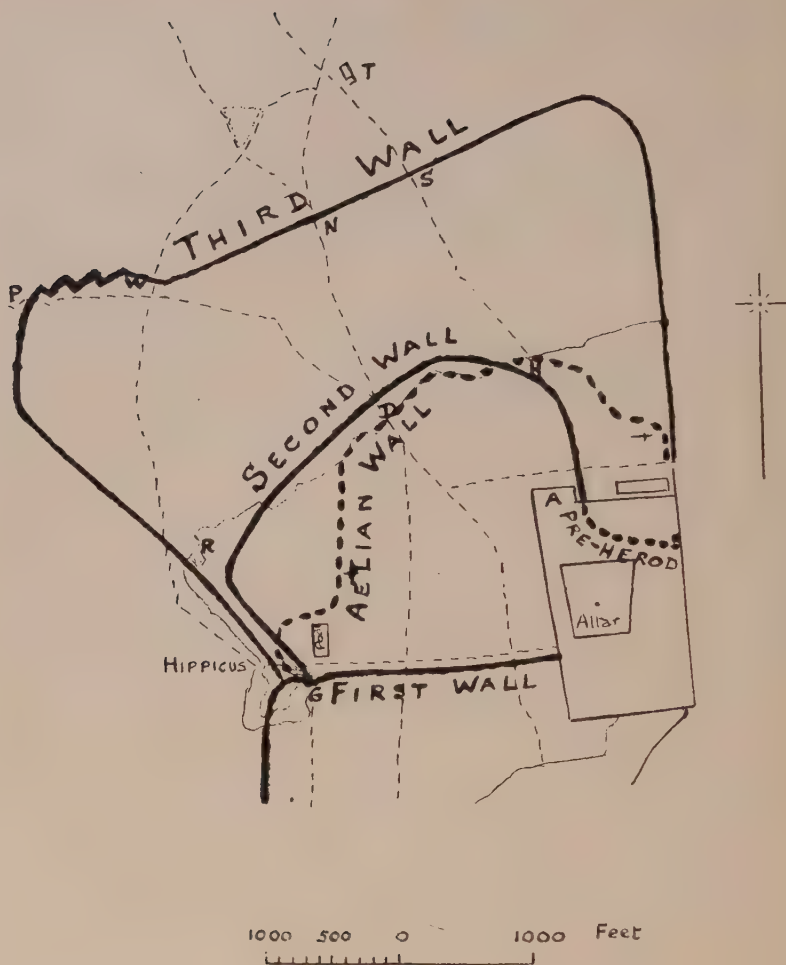
¹ *Q.S.*, 1925, p. 182.

² *Bulletin of the American School of Oriental Research*, December, 1925.

³ *La Troisième Enceinte*, *Revue Biblique*, 1927; 1928.

⁴ *Qly. of Dept. of Ant. of Pal.*, X, No. 1, p. 52.

PLATE VII



A. ANTONIA
 D. DAMASCUS GATE
 G. GENNATH GATE
 H. HEROD'S GATE
 N. "NABLUS" GATE

P. PSEPHINUS
 R. RUINS, INSIDE N.W. CORNER
 S. "SALADIN" GATE
 T. TOMBS OF THE KINGS
 W. WOMEN'S TOWERS GATE

early twentieth centuries was based on a variety of arguments. I think the list given below puts the case fairly.

1. No sign of any wall or ditch north of the present one.
2. Little sign of ancient buildings, either close inside the existing north walls, or outside them.
3. No reason to suppose any excuse for a "Robinson" line in the time of Agrippa.
4. The present north walls agreed generally with the description left by Josephus: Psephinus stood at Goliath's Castle, there was "complete agreement" that the Cotton Grottoes were the "Sepulchral Caverns", and the wall was held to "include the hill Bezetha."

5. Objections to a Robinson wall were that it would include much ground not necessary to the defence of Bezetha, have too extended a front and thus prove a weakness for an overstrained small garrison; there was no justification for such a wide extension on east or west.

Under the assumption that these arguments were sound, the figures given by Josephus for the perimeter of the city (33 stadia) and for the Roman wall of circumvallation (39 stadia) were derided.

This, of course, was done because they failed to fit the accepted theory. But when applied to the new wall they are shown to be accurate.

All the above arguments, in so far as they favoured the Second wall theory, have been blown sky high by the Sukenik-Mayer line. How, then, can the situation be as it was before; and what are the grounds now remaining for even imagining that this intermediate wall between the Damascus Gate and the First wall ever existed? There can be little doubt that men like Warren and Wilson would never have subscribed to the Second wall theory if the Sukenik-Mayer discoveries had been made in their life time.

Every suggested trace for this (Second) wall is unacceptable. For one thing, it is alien to the characteristics of a Jewish defence, which chose a high line, ridge and crest whenever possible, and invariably commanded the forward slope. I know of no single example of a Hebrew town front wall on a reverse slope, as any suggested line east of the Holy Sepulchre Church must be.

We might possibly imagine the Jews, for extreme economic reasons, running a temporary line immediately west of that church, as was done, I believe, by Hadrian for his wall of 135 A.D. That line was possible for a rampart only 6-7 ft. wide, built to protect the colony against raiding parties, bandits, etc.; but for siege purposes the one and only good line was straight up the western ridge and down the Bezetha hill. No soldiers can doubt that that is the correct line for such a wall to take. Jerusalem was the capital of a nation; its engineers would be the best that money could buy, and so the best available trace would be adopted. With a good line staring them in the face—up the western ridge and down Bezetha—why should this absurdly weak—criminally and childishly weak—line be thought to have been the one not only chosen by the King's engineers, but also accepted and erected; and why was it that for 700 years, despite the appalling catastrophes which must have resulted from the choice of such a line, no sane man arose to tear down this monstrosity and replace it by a wall on the obvious and sensible trace? It is asking too much to expect us to believe that. I have not come across any suggested reason as to why the Jews should have taken the Second wall east of the Holy Sepulchre.

In my opinion the line is so bad that its acceptance is an insult to the intelligence of the ancient responsible engineers. Moreover, Tacitus referred to the skilful trace of the Jerusalem defences. He cannot have been told of such a Second wall!

This is sometimes called the traditional Second wall. That is a misnomer. It had no tradition. The only tradition for the Second wall of which we have knowledge is connected with the Damascus Gate line, for outside this gate was the traditional spot of St. Stephen's martyrdom, and the gate was known as St. Stephen's Gate and so shown on maps till 1200 A.D. Even as late as c. 1483 Felix Fabri refers to the north gate as St. Stephen's, although by then the transfer of the place of martyrdom to the present St. Stephen's Gate had been so far established that he put the martyrdom outside that gate.

The change seems to have been made about 1300, the first mention of the Via Dolorosa being in 1321 A.D. But the early tradition—at any rate dating back to the fourth century—

was that the St. Stephen's Gate was the present Damascus Gate.

But for the theoretical Second wall there is no such tradition, and there never has been. I do not see how any unbiassed student of history can conclude otherwise than that this was never a Jewish defence, but simply an ecclesiastical rampart invented in the thirteenth or fourteenth century to buttress the claims of the Church of the Holy Sepulchre.

Had there been a reputable tradition in 1300 A.D., it would certainly have existed in the fourth century. Yet in c. 360 A.D. Cyril I was constrained to answer the question of the position of the tomb, by reference to an obscure passage in the Septuagint which could have given no information to the questioners who asked to be told "plainly" the position of the tomb relative to the ancient walls. Why did not Cyril point to the traditional wall? The answer, of course, is that there was not one—until about 1,000 years later.

It is not, however, the Church of the Holy Sepulchre which is my present interest, but the position of these military walls, the Second, the Third and the Aelian.

Ross, in my opinion, rightly pointed out that Hadrian would not have left his new Greek colony without a north wall in the Second Century, and that thus there must have been one at the Damascus Gate before the third or fourth.¹

Think of the conditions. The Jews were barred from coming within sight of Jerusalem, and their inveterate enemies, the Greeks, were there installed. That must have been the bitterest blow of all. For centuries Palestine had been overrun by brigands, and banditry must now have been more rife than ever.

No Greeks would, or could, have settled with their families in an unwallled Aelia. The Roman garrison in the legionary fortress south of the Citadel would have been powerless to protect the colonists in the north against nightly raids. The place would have been harried and burnt by Jewish raiders every six months or so, the attackers being off into the darkness before the slow-footed legionary could get on the move. Cavalry cannot usefully pursue by night over broken country, and the raiding party would have been under cover in the

¹ *Q.S.*, 1942, p. 81

mountains before dawn. There must certainly have been an Aelian wall in c. 135 A.D.

Hamilton's failure to find any remains earlier than the third or fourth century seems to have led to the belief that no Aelian defence before that date and no Second wall at any time came as far north as the present gate. And so the Second wall theory is resuscitated.

That is fallacious reasoning. All that Hamilton has satisfied himself is that no such walls ran along the narrow strip he excavated. But suppose those walls to have run about 30 yards north of that strip, as I believe? Hamilton has published no evidence that they did not. Those are the points to which I wish to draw attention, for the evidence that the Second wall reached the Damascus Gate line is overwhelming. The evidence of the Aelian line, such as we have, also points to the same conclusion.

To clear the ground, something must first be said about Johns' excavations at the Citadel.¹

The Citadel Excavations.

Johns found the bend of the ancient First wall, as it turned from north to west, and the remains of two towers on the curve, west of the Tower of David (Phasaelus). Here are the correct military positions for Hippicus and Mariamne. But Johns failed to find bits of Hippicus at his corner tower, where, however, he did discover fragments a little anterior to its date. He then made the astonishing statement that Hippicus was "at first presumably" a detached tower standing somewhere on the flat saddle outside his curving wall.

There is no authority for this presumption, which is opposed to what Josephus says (as Johns admits), and is militarily an impossible conception.

Apparently Johns was led into this error by a misreading of Josephus, assuming that there were only two and not three Herodian towers in the old wall. He bases this conclusion on Wars v, 161. "Over against this was the tower Hippicus and close to it two others built by King Herod in the old wall." That passage has before been quoted as proof that there were only two towers in the old wall. It is nothing of the kind.

¹ *Qly. of Dept. of Ant. in Pal.* V. No. 4. p. 127 ff.

Admittedly the statement is vague, and might be read either to refer to two or to three towers in the wall. But I cannot understand how anyone can base any argument on that extract without referring to Wars v, 172/3: "While such were the proportions of these three towers, they seemed far larger owing to their site. For the old wall in which they stood was itself built on a lofty hill and above the hill rose as it were a crest thirty cubits higher still; on this the towers stood and thus gained immensely in elevation."

Note that the Greek says "3" towers.

Johns has therefore only provided his readers with half the evidence, and this latter half shatters his case historically for an isolated Hippicus.

Further, the statements by Josephus about the lofty hill on which the wall and towers stood was found by Johns to be correct. How, then, can Hippicus at any time have stood on a flat saddle?

Consequently Hippicus must be sought on the curving wall, I should imagine at Johns' Corner Tower, even if no traces of it remain. I do not see how it can be anywhere else.

Equally it is unsound, in my opinion, to site Mariamne, as Johns has done, in the re-entrant east of the Tower of David, and where in the past certain writers have assumed it. Strong towers are placed at salients, not at re-entrants. Mariamne could not be east of this re-entrant, for that would locate it outside the fortified palace enceinte, thus useless to Herod, and, incidentally within the Second wall. Mariamne, I imagine, stood at Johns' South Tower.

In the matter of these towers we have always to remember their *raison d'être*. They were built solely to strengthen Herod's palace, for his own security. Consequently they would all be north of his palace, as Josephus says, and form part of the "bend" fortifications, just as Psephinus and its neighbouring towers were the "bend" fortifications in the Third wall.

There is one other point to which reference must be made.

Johns found the beginning of a Roman wall running north from the Tower of David. Forty yards to the north was the south end of the 120ft. fragment, claimed by some to have been part of the Second wall. Its direction was straight towards

Johns' Roman wall and he concludes it was part of it, and cannot therefore have belonged to the Second wall.

I think that must be accepted,¹ but this does not negative the possibility of the Second wall also having run up the western ridge. I am certain it did. Yet Johns seems to have concluded otherwise, or he would not have shown Hippicus where he did, i.e., close outside the First wall and very close to where I believe the Second to have run. His isolated tower would have been perfectly useless to the defence, and when captured by a besieger, as it most certainly would have been, would have proved of the greatest value to the attack. A fortress commander clears his front; he does not strew it with gifts to the enemy. Whether the Second wall ran up the western ridge or not, no commander would have sited Hippicus on the flat saddle, where it could fulfil no tactical function, except to blanket the fire of the towers in the First wall.

The Second Wall.

We can now turn to the course of the Second wall, and to the various bits of evidence which show, conclusively, that it ran as far north as the Damascus Gate.

1. *Felix Fabri.*

Fabri's report² of the fragments of wall seen by him in c. 1483 A.D. within the present N.W. corner has not received the attention it deserves, and seems never to have been understood. To my mind the meaning is clear.

Fabri passed from outside over the then ditch at the north-west corner and noted the Goliath Castle ruins which he called "Psephinus-Phasaelus." He writes that he there saw the ancient walls, and foundations upon which towers had stood. He says that "here the wall was doubled" and that a path (or passage) ran between the "upper and lower" part of the wall.

We see here the, then, teaching of the Church; for Fabri's guide was, of course, a priest. This teaching was that

¹ Only excavation could prove it. Schick & Merrill wrote short accounts when the wall was uncovered, but no real archaeological report was issued.

² *Pal. Pil. Texts*, Vol. VIII.

the ruins of these two walls were those of the Third wall only, which here was a double one. We know, however, from Josephus, that the Third wall was a single one 10 cubits wide. Schick found what was undoubtedly a fragment of it. It was 14 ft. wide, i.e. c. 10 cubits at 17 in. (which I believe to have been the measure used by Josephus). That is approximately the width of the Sukenik-Mayer wall. The north end of Schick's fragment—26 ft. were laid bare—was 65 ft. south of Goliath's Castle and running towards it. Schick was satisfied that this wall was a continuation southwards of the Robinson wall outside the N.W. corner. Its stones averaged 4 ft. high and were like those in the temple area well.¹

Schick's fragment, in the Latin Patriarch's garden, was below and west of the crest of the western ridge, whereas the Robinson wall to the north is on the crest. The conclusion is plain. Fabri's lower wall was the Third, and his upper wall the Second. It was because the crest was already occupied by the Second wall that the Third "here," i.e., where it ran parallel with the Second, had to run on the lower ground.

This also explains that term used by Josephus when giving reasons for the Roman point of attack: "Here the first line of ramparts was on lower ground." (Wars v, 260.) It was thus easier to attack.

Fabri's upper wall was, then, the Second, which having run up the western ridge, then bent eastwards towards the Damascus Gate, thus leaving the crest free for the Third wall to follow it thereafter.

2. *The Antonia Aqueduct.*

I next wish to give evidence of the Second wall, 50 yards east of the Damascus Gate. This is furnished by the Antonia aqueduct. This conduit, issuing from the west side of Antonia, goes northwards through Herod the Great's Antonia ditch, eventually passing through the present wall about 50 yards east of the Damascus Gate. Adam Smith's map shows it making a sharp turn to the north east outside the wall. The conduit was cut by Herod's Antonia ditch, and is therefore anterior to Herod's time. Yet for three-quarters of the way between Antonia and the city wall it follows the line of present

¹Q.S., 1889, p. 65.

streets, but not of contours. This pre-supposes that the streets were made before Herod's time and before the aqueduct. Finally the turn outside suggests that the wall was made before the aqueduct. That wall can only have been the Second.

3. *Hamilton's rock-hewn aqueduct near Herod's Gate.*

My next point is 250 yards to the east, and about 90 yards west of Herod's Gate. Here Hamilton found a rock cut aqueduct whose north end has been cut by the scarp about 10 yards outside the present wall. It passed under the wall, and about 5 yards inside is a large inspection chamber. This conduit and chamber are older than the earliest wall found in that locality (put by Hamilton at third-fourth centuries A.D.).

It seems very unlikely that a large inspection chamber should have been built 200—300 yards outside the walls, as must have been the case if the city walls only ran by Antonia. But within the walls it would be expected.

The deduction appears to be that when the inspection chamber was made, the city wall ran north of the present north end of the conduit, all traces of the conduit having been lost when the Bezetha ditch was cut. This also supports the view that the ancient wall ran outside the present one. That wall can only have been the Second. I now turn to the stones passing through the wall about 40 yards more to the east.

4. *The "stones" west of Herod's Gate.*

These stones are fragments of a wall 14 ft. wide passing from N. to S. through the base of the present wall. The width accords with that of the Sukenik-Mayer line, and so with first century work. The bedding is also similar.

They clearly belong to a Hebrew wall which, at this spot, was running North and South before the present one was built. They have nothing to do with the Agrippa line, which will be found to run above the Kedron Valley to Burj Laklak and St. Stephen's Gate. Again I am led to believe they can only belong to the Second wall which, having run outside the present one, had bent southwards and was now running towards Antonia.

5. *Helena's Pyramids.*

I must also refer to the point of measurement by Josephus in his statement that Queen Helena's Pyramids were "over 3 stadia from the city Jerusalem."

In 1938 I gave my reasons for concluding that this measurement was taken from the Damascus Gate.¹ After another six years' study of this subject, I am as sure of that as I was then. That gate would have been in the Second wall. I then gave reasons why the Second wall *must* have run along the Damascus Gate line, and no upholders of the Second wall theory wrote to point out where I was wrong. If they think they can disprove new reasoning, let them do so. But there is no sense in failing to meet a new case and then saying the position is as it was before. It certainly is not; and the discoveries by Sukenik and Mayer have altered everything and provided just those points hitherto lacking for the upholders of the Robinson line.

The reasons for my belief that the Second wall originally ran about 30 yards north of the Damascus Gate are far too long for this paper.² I do not say that in the first century A.D., after about 700 years of turbulent life, the wall was still on that line. It may have been 10 or 20 yards more to the south owing to repeated destructions and restorations. The position might be ascertained by excavation—if traces still remain.

6. *The Camel Track.*

Another point in favour of the ancient wall having run along the Damascus Gate line is the position of the east and west road outside.

Why should this old camel track run 40-60 yards outside the walls, seeing that there has never been a rock-cut ditch west of the Damascus Gate? If, however, the walls originally ran some distance north of the present ones, an answer is suggested, for a camel track direction does not vary unless a physical obstruction compels it to do so.

¹ *Q.S.*, 1938, p. 84ff.

² My book on this and kindred subjects cannot be published till after the war.

7. *The Cistern Stones at Damascus Gate.*

There remain to be considered the great stones in the cistern found by Hamilton *outside* the present gate, and thought by him to date from the time of Herod the Great or immediately afterwards. Hamilton suggests they formed part of a public building.

But if all this was 200–300 yards outside the walls in Herodian times, what was a public building doing in such an exposed position? I do not think the suggestion is tenable. Moreover, the size of the stones—one is over 12 feet long—seems opposed to the idea. I should regard them as having belonged to some fortification, and seeing they are close within where I suppose the wall to have run, I think it far more likely they formed part of the gate defences. Such fortifications would be normal at, or inside, this main gate.

The above is by no means the sum total of the evidence available. How then can we deny that the ancient Second wall reached at least as far north as the Damascus Gate?

I can now trace how I think this wall ran.

It began at the Gennath Gate, immediately east of the Tower of David (Phasaelus). I am confident of this, for reasons unfortunately too long to give here. It went up the western ridge (*about* where the Roman 120 ft. fragment was found), bent south-east of Goliath's Castle, and thence went outside the Damascus Gate to the Bezetha hill where it turned, short of the present Herod's Gate, and then ran down the hill to the east end of Antonia. The so-called Jewish towers may have belonged to it.

Before the Herodian temple alterations I believe the Second wall to have run [as shown on sketch] to the old N.E. corner of the Temple area. I should put the towers Hananeel and Hammeah¹ in the bend on the Bezetha hill; for that is the one spot where great towers might be expected.

This line gives a 25-stadia circuit for the two-walled city; and is thus in accord with the figure given by the second century B.C. Surveyor of Syria. The theoretical wall is about 4 stadia, or half a mile, too short.

This line also explains the presence of Hebrew stones along the present north walls, and their absence between

¹ Neh. 3, 1; 12, 39

Herod's Gate and Burj Laklak, since no Hebrew wall ever ran along that section.

The Aelian Wall.

This wall, according to Johns, began at the Tower of David; the 120 ft. fragment 40 yards away being part of it. The line may then have followed what is called the Schick Second wall line, but have run across the plateau west of the Holy Sepulchre Church. At any rate, however it ran, from the 120 ft. fragment it seems to have been one of the two reported by Schick¹ as being quite close to the N.W. corner of the Church. Schick found two fragments of wall both running north and south, one being about 20 feet west of the other. The easterly wall was built of moderate sized well-hewn stones, and about 6 ft. wide. The westerly wall had larger stones, some of them 6-7 ft. long and about 2 ft. high. It was thicker than the other.

Schick's explanation for the walls is not clear to me. But the wall of large stones more than 6 ft. thick puts me in mind of the 120 ft. fragment also 6-7 ft. thick and of large stones. Johns' Roman wall is also of large stones. A further detail is that Schick recounts having read that Constantine's buildings "reached to the western town wall."

Now Cyril I, c. 360, in a catechetical lecture, said that the tomb was "near the outer wall."² He could not, by this, have meant one of those on the western ridge, for those ruins were about 300 yards away.

I am therefore disposed to think that Hadrian took his wall across this plateau and on to meet the old Second wall line somewhere west of the Damascus Gate, thence up the Bezetha hill. I have shown on Sketch what I believe to have been its subsequent course if the Madeba mosaic does show it, as it is thought to do. That map shows the wall closely enclosing St. Anne's Church on north and east. So how can we take the wall to Burj Laklak, seeing that that tower is 300 yards from St. Anne's Church? Examination of the mosaic shows it—admittedly conventional—far too accurately for such a conclusion.

¹ *Q.S.*, 1891, p. 277 ff.

² *Cat. Lect.*, XIV, 9. Quoted in *Golgotha*, p. 196.

The Third Wall.

Its course is now so well known that little need be said about it. It began, I believe, at Johns' Corner Tower, ran inside the present walls to the Latin Patriarch's garden, Goliath's Castle and beyond. On the east it bent above the Kedron, and passing Burj Laklak ended at St. Stephen's Gate—hence the statement by Josephus that it finished in the Kedron Valley. We should have expected it to end at the N.E. corner of the Temple area, but Herod the Great had already built the Birket Israel and its eastern dam wall, which ended at St. Stephen's Gate. Agrippa may have intended to crenellate the dam wall, and the Jews no doubt did so later. But it was not part of the new Agrippa fortification.

I have many reasons for this. All I can say here is that the Agrippa wall was built on a 17 inch cubit, whereas the Birket Israel is found to be based on one of 20.61 in., the Temple cubit ; for it was part of the Antonia Temple defences.

Conclusions.

The above shows how I believe these north walls to have run. A suggestion was made lately in this journal that we should dig to try and find the Second wall. That is an excellent suggestion, but do not let us do so on the theoretical line ; for in my opinion that would be labour in vain. Something might be found 30 yards north (or less) from the Damascus Gate. It seems also just possible we might find the "middle tower" of this wall, which was rammed from the ground level. This shows it did not stand above a scarp, so no scarp can have been cut back. I imagine that tower to have been about 350 yards west of Damascus Gate—in front of the present wall.

ON THE POSSIBILITY OF DATING HEBREW INSCRIPTIONS

BY S. A. BIRNBAUM

THE determination of undated inscriptions in the original Hebrew script is certainly not an easy task. Should we, therefore, not attempt to tackle it at all, and rather wait¹ until new finds provide us with new material?

A real change in the situation could only be brought about by much better and more extensive ones than those hitherto brought to light. Are we justified in reckoning with the likelihood of such finds? Is it not at least as reasonable to expect that the present number of early inscriptions will not be very considerably increased?

And if this be so, should inadequacy of available material be permitted to act as a permanent bar to research? Have others allowed it to do so, in palaeography or in any other fields? The answer is, no.

North Semitic. In the present case the investigator has, too, a possibility of somewhat enriching his resources by drawing on non-Hebrew North Semitic writing.

It cannot seriously be contended that—as far as the early centuries are concerned—the scripts of Phoenicia, Syria and Moab may not under any circumstances whatsoever be “lumped together” with the script of Israel and Judah. Actually, palaeographers do not separate them. The reason is apparent. If, for example, we put the alphabets of the Ahiram, Abibaal and Elibaal inscriptions, of the Arslan Tash Ivories, and of the Mesa Stele, side by side with that of the Gezer Tablet, we realize that there is no difference in the basic forms or in the style. Those differences which do appear are connected with the chronological factor. Whatever

¹ Dr. Diringer thinks we should: “the extant material of early Hebrew epigraphy is not yet sufficient” (*P.E.Q.*, 1943, pp. 50–54). The present notes have been occasioned by his article.

regional differences there may have been between the various North Semitic groups, they must have been very small indeed, since we cannot ascertain what they were, from our material. Hence, we need not, on the score of incongruity, shrink from utilizing documents other than Judæan and Israelite, for we are not violating the principle that comparisons should only be made within a group.

Scantiness of Material does not altogether prevent us from observing the main development, even though it restricts our observation of transitional stages. But from one point of view this might even be said to be of advantage.

Where all the stages are known, they are so near to each other that the forms have naturally many features in common. This complicates the work of comparison, since, in the development of script, regular movements of the whole alphabet do not take place. It is the individual letters—sometimes certain features, of a group—which undergo changes. And they do so at different rates of speed. In one and the same period and in one and the same documents, letters which have changed very little during a given time, appear by the side of others which have developed far more quickly. The investigator must not consequently be misled into ascribing too great an age to the document.

The absence of connecting links has the effect of throwing the differences into clearer relief, and of thereby, in a way, simplifying the task of comparison.

It is thus quite possible that certain conclusions drawn from a few documents may be as dependable as if they had been based on a far greater number. For example, the six inscriptions used for dating the Gezer Tablet (*P.E.Q.*, 1942, pp. 104-107) suffice to show the growing measure of similarity between them and the Tablet, as we pass from the eleventh century of Ahiiram's tomb inscription to the ninth century of the Mesa Stele.

Sometimes, still fewer even will suffice.

For the dating of the Samaria Ostraca (*ib.*, pp. 107-108) use was made of two inscriptions only. From the regnal years on the Ostraca, we know that these must have been written during one of the reigns of Ahab, Jehu, Jehoahaz or Jeroboam II. This knowledge would enable us to establish precise dates

provided we were in a position to relate the script of the sherds to that of dated inscriptions belonging to those times. The Mesa Stele (*M*) and the Siloam Inscription (*Si*) are available for that purpose. Both are well dated documents, the former from about 850, the latter from the end of the eighth century. If, on comparison, we found that the script of the sherds was distinctly nearer to *M* than to *Si* (or vice versa), then we should be justified in assuming a closer temporal relation between the Ostraca and the reign during which *M* was written, than between them and the reign during which *Si* was written (or vice versa). In other words, if the script of the sherds resembles *M*, then the period of Ahab or Jehu—or in a lesser degree, Jehoahaz—would be probable; if there were greater similarity with *Si*, then the period of Jeroboam II would be the likelier.

It would appear, therefore, that wealth of material is not always essential to reaching reliable results.

Certainty of Date. Even the principle that comparison may be based only on documents whose date is beyond doubt, needs qualification.

In favourable circumstances, even material of controversial date can be very useful, e.g., the Ahiiram inscription (ib.). Some scholars have ascribed it to the middle of the thirteenth century, on account of the Ramses II fragments. But, as Spiegelberg points out, these cannot be taken as indicating the age of Ahiiram, since the tomb was plundered in the eighth-seventh century. It seems preferable to accept Albright's date ("probably not far from 1100 B.C.").

The idea in using the sarcophagus alphabet, is not, of course, to take it as a starting point from which to reckon out the time distance to the script of the Tablet. The Ahiiram alphabet is taken merely to represent the upper time limit, since comparison shows that the Gezer forms are clearly later and cannot belong to the Ahiiram period—wherever that might be placed.

Inscription and Manuscript. With so little material available, it is natural to make use of everything there is, and to turn to handwriting, too, for comparison. In theory this should, of course, be avoided, since all material imposes on the writer a particular technique, which may result in a differ-

ence of style or even in changes of the basic form of letters. Actually, however, with the exercise of due care, the inherent danger of comparing incongruous scripts need not work out to be so great in practice as it would appear to be in theory.

If, for example, we put the Mesa and Siloam alphabets side by side with that of the Samaria Ostraca, we see that there is a general difference. It is one of style and is occasioned by the use of the pen for the Ostraca and of the chisel for the others. In handwriting, a strong contrast develops between up and downstrokes. In the one, the writing edge of the pen is parallel to the movement of the hand, thin lines being the result, in the other, there is an angle of 90 degrees, resulting in thick lines.

But that is all. The writing of the Ostraca was not an ornamentally developed manuscript hand. The essential shape remained unchanged. Hence, comparison as to their respective stages of development is possible.

* * *

In the following, attention is given to the details brought up in Dr. Diringer's aforementioned article.

North Semitic. "The forms, with all their details, of the Ahiram characters [are not] the original forms of the north-Semitic letters." I have nowhere in my article said or implied that they are.

Curving. Curves do not in themselves constitute a proof of either earliness or lateness of development. Both in cursive and ornamental development, straight lines become curved and vice versa.

Gezer Letters. Daleth. The right side is not "practically vertical." It slants to the right, it is perfectly parallel with the downstrokes of the Heth in the line above. (In the examples of Resh, the downstrokes are by no means all vertical. Forms like these, are just indefinite, intermediate between a slant to the left or to the right. This may be said of Samekh, too.)

Waw. The top part of this letter in the fifth line is not, even "roughly speaking," a semi-circle. It is similar to all the other Waws of the Tablet. Their top parts are all narrow and high, sometimes these are straight-lined, or even completely angular. This is in clear contrast to the wide form of Ahiram, with its curved lines.

Kaph. In certain respects, the forms in the Tablet and in the Mesa Stele differ, but in both, the right hand stroke is projected downwards.

Mem. There is no reason whatsoever for assuming that the lowest stroke was initially of the same length as the others and that it was only lengthened later. The letter clearly has the younger form : a top part and a shaft.

Variants. It is not a feature peculiar to the Gezer Tablet that practically no letter appears twice in the identical shape. The variants, e.g., in the Ahiram inscription, are even more numerous.

The Gezer variants cannot be taken as "a proof that the forms of the letters were still unstable in details." The man who wrote the Tablet does not appear to have been a professional engraver. His writing was thus, a kind of cursive. We need only look at anything we write ourselves—and paper and pen are much easier materials to handle—in order to realize that we rarely shape a letter twice in precisely the identical way in one and the same line. Nobody would, however, therefore jump to the conclusion that the Roman characters of to-day are still unstable in detail.

HOLY WEEK IN JERUSALEM

(See Plates VIII-XI)

BY HAROLD J. SHEPSTONE

IN Jerusalem Holy Week must be written in the plural. It is then that pilgrims of the three great monotheistic faiths—Christianity, Mohammedanism and Judaism—gather in the Holy City, the Christians to carry out elaborate and gorgeous ceremonies recalling the awful events of the week; the Moslems to honour their prophet and flag; and the Jews to commemorate the Passover. Statistics show that in normal times Jerusalem attracts a far greater number of pilgrims than does Mecca or Medina.

The Nebi Mousa is a pilgrimage of the followers of Mohammed to the supposed tomb of Moses, a huge shrine among the desolate hills in the Wilderness of Judea within a short distance of the Holy City. Moses, we know, was not buried here. But some years ago the Turks, who then ruled the country, were alarmed because so many Christian pilgrims came pouring into the city at Easter time. There were often as many as 10,000 from Russia alone. So the Turks declared that Moses, who is revered among them as a great prophet, was buried at a certain spot and instituted a yearly pilgrimage to his tomb, the idea being to have a large number of stalwart fellaheen near at hand in case the pilgrims got out of hand and seized the holy places.

At first primitive in character, the festival has developed into a rich pageant. It is a march from the Temple Area in Jerusalem to the supposed tomb of Moses. The procession is made up of individual groups representing some district, town or village. There are bands and banners. The most sacred object in the procession is the flag of the Nebi Mousa. A member of the oldest Moslem family in Jerusalem carries it. It is made of fine coloured silk with a white background. The shadow of the flag is declared to be beneficent; one touch of it heals all diseases. Round its edge are inscribed

texts from the Koran. Before the war the flag was ceremoniously handed to the carrier by the Grand Mufti ; he having fled the country, this honour now falls to the British Governor of Jerusalem. A whole week is spent by the Nebi Mousa pilgrims at the shrine in the wilderness in fasting, feasting, prayer, races and other sports.

It is in the first month of the Jewish year, Abib (March-April), often falling about the Christian Easter, that the Jews celebrate the Passover. It commemorates Jehovah's " passing over " the houses of the Israelites when the first-born of the Egyptians were slain. Bitter herbs are eaten as well as unleavened bread, while on the table in a dish reposes, in lieu of the Passover lamb, the shank bone of an animal. Wine is drunk and there is song and mirth. Among many of the more devout the Passover lasts eight days.

All through Holy Week, however, the Church of the Holy Sepulchre is the great centre of attraction. This historic shrine marks the traditional sites of the Crucifixion and burial of Christ. It is a great rambling structure containing more than twenty different chapels and no fewer than twenty-seven so-called holy places in which worship six different sects—Greeks, Latins, Armenians, Copts, Syrians and Abyssinians.

For the first time a series of interesting photographs have been secured depicting the extraordinary scenes which may be witnessed within the church at Easter. To obtain them many special arrangements had to be made. In the first place it was essential to obtain the co-operation of the various Patriarchs or heads of the different communities, and this was done by Mr. Edward Keith-Roach, the District Commissioner of Jerusalem. He was anxious to procure a pictorial record of the ceremonies. The interior of the church is rather dark and to provide the necessary lighting, fairly extensive wiring had to be carried out. Platforms had also to be erected from which the pictures could be taken. It being war time and travelling throughout the Middle East being restricted was also an advantage, as it meant a less crowded church.

Here, all through Holy Week, centring round the tomb of Christ, ceremony follows ceremony like the many acts of a long play. They begin early on Palm Sunday with the distribution of palms to the clergy before the Sepulchre by the

various heads of the different communities. There is the festival of Spy-Wednesday, the name given to the Wednesday immediately preceding Easter in allusion to the betrayal of Our Lord by Judas Iscariot. There are the Tenebrae services which commence on Wednesday and continue on Thursday and Friday, a feature of which are a number of lighted candles which are gradually extinguished until only one is left representing the growing darkness of the world at the time of the Crucifixion.

Thursday witnesses the picturesque ceremony of the Washing of the Feet, when the Patriarchs and Bishops of the various communities bathe the right foot of twelve of their priests. The Latins perform it before the Sepulchre with all the dignity of a Western service, while the Greeks celebrate it on a raised dais in the courtyard of the church before an excited crowd. The Abyssinians also hold their ceremony in the open above the ancient dome of the Chapel of St. Helena when the Abyssinian Abbot washes in a thorough-going manner the bare feet of twelve of his monks under a tent.

One of the most poignant of the ceremonies is that of the Crucifixion, when the Latin Patriarch, in mitre and full dress, assisted by his clergy, holds a service in the Chapel of Calvary before a cross on which a dummy figure has previously been nailed. At the end of the service the body is taken down from the cross, wrapped in a white sheet, the crown of thorns and the nails drawn from the hands and feet being placed on silver salvers. A procession is then formed which threads its way among the worshippers to the Stone of Unction, a marble slab on which tradition says the body of Christ was prepared for burial. Here it is solemnly laid, prayed over, anointed and then borne away amid the wailing of many voices to rest in the Sepulchre.

Perhaps the most spectacular event of Holy Week in Jerusalem is the so-called Miracle of the Holy Fire, which takes place on the Saturday. Though the ceremony is essentially a rite of the Orthodox Greek Church, the other communities take part in it. So keen is the interest in the ceremony that hundreds take up their position in the church the night before and sleep there, bringing rugs, wraps and baskets of food, turning the floor of the building into a kind of picnic ground.

At the appointed time the Armenian Patriarch, in crown and gorgeous vestments, attended by his clergy, makes a circuit of the Sepulchre. He is followed by the Moslem Guardian of the church who, in the presence of Greek and Armenian priests, exercises his traditional privilege of sealing the door of the tomb. Ever since Jerusalem was lost to Saladin by the Crusaders the keys of the church have been in possession of an old-established Moslem family in Jerusalem, who lock the door of the church every night and open it in the morning. The sealing is done by tying the handles of the door in a bow of white ribbon and sealing them with wax.

The tomb having been sealed the Greek Patriarch appears from the adjoining Greek Cathedral and encircles the Sepulchre three times, coming to a halt before the closed door. Standing here he is disrobed of crown and vestments when, in due solemnity, he breaks the seal and enters the tomb accompanied by the Armenian Patriarch. There is a hush, followed by a great shout as a priest withdraws his arm from a hole in the side of the Sepulchre holding a lighted torch. A similar flame is also taken out from a hole in the opposite side. Then the Greek Patriarch emerges from the entrance also carrying the holy flame. The appearance of these lighted torches is greeted with cheering, shouting, the clapping of hands and the ringing of bells as the excited crowd press forward, eager to light their tapers from the supposed Pentecostal flame.

On Easter Sunday there are processions round the tomb headed by elaborate and heavily bejewelled crosses, gorgeous banners and the dignitaries of the various communities in vestments stiff with silver and gold embroideries and adorned with precious stones, wearing immense mitres or crowns. Special altars are set up. One before the Sepulchre is of silver in connection with the ceremony of the Precious Blood when the Latin Patriarch reverently blesses and partakes of wine as symbolic of the blood of Christ.

Perhaps the strangest of all the festivals is the Searching for the Body by the Abyssinians. Wearing a crown and dressed in robes of barbaric splendour the Abyssinian Abbot makes a circuit round their little chapel above the ancient dome of St. Helena's Chapel under a ceremonial umbrella

accompanied by his black monks. Litanies are chanted to the beating of wooden drums and the ringing of sestras, a kind of rattle not unlike those found in the tomb of Tutankhamen. Round and round the procession passes, at first rather grave. Suddenly it changes to a gay and joyous note. There is shouting, cries of jubilation and dancing. They are not exactly meaningless gesticulations for these black men from Africa have been searching for the body of Christ to discover with great joy that He has risen.

To us from the West the ceremonies appear to be little more than stage acting and lack dignity and reverence, though there is some fascination in that extraordinary admixture of Eastern and Western forms of worship. Here we must remember that the greater majority of the pilgrims are for the most part poorly educated. They honestly believe that the church in which the plays are enacted does mark the site of calvary and was the scene of the resurrection. They are carried away in this belief and amid all the pomp and glamour get overwrought and excited. Yet, as Mr. Keith-Roach says: "The holy week services strengthens the faith of pilgrim and resident of Jerusalem alike and all receive a kind of spiritual spring-cleaning and feel the better for the experience."

REVIEWS AND NOTICES

The Annual of the American Schools of Oriental Research, Vols. XXI-XXII for 1941-3. *The Excavation of Tell Beit Mersim*, Vol. III, *The Iron Age*, by William Foxwell Albright, with a chapter by James Leon Kelso and J. Palin Thorley, 229 pp., New Haven, 1943.

PROFESSOR ALBRIGHT has produced the last volume for the present, on his excavations at Tell Beit Mersim, and he hands it on to his readers almost regretfully for, as he says, the project was never far from his thoughts since its inception in 1926. The publications of the American Schools of Oriental Research have, of course, maintained their high standard of recording and detail, so that it is possible for those whose war occupations have estranged them from such things as pottery technique and form to recapture a sense of familiarity.

Previous publications were Vol. I, *The Pottery of the first Three Campaigns* (ASOR, Vol. XII); Vol. IA, *The Bronze Age Pottery of the Fourth Campaign* (ASOR, Vol. XIII); Vol. II, *The Bronze Age* (ASOR, Vol. XVII); now Vol. III, *The Iron Age*, brings this essential and valuable stratigraphical record to a close.

Though the author may deplore the lack of tombs at Tell Beit Mersim, as far as those of the Iron Age are concerned, the communal burial places usual in this period exist in jumbled profusion at the neighbouring site of Tell ed Duweir, and provide practically no evidence for the chronological range of their contents, while the city levels so far excavated are confined to the last phases of Iron Age II. Therefore it will only be possible to sort the large range of objects into some kind of order under the control of the sequence supplied by such reliable sites as Tell Beit Mersim.

The site is small and compact, 7.5 acres within the city walls, compared to 22.5 acres at Tell ed Duweir, and it is natural that the history of the two mounds, only eight miles apart, should follow the same fortune, and suffer the same drastic destruction at close intervals.

Up to the Iron Age Tell Beit Mersim and Tell ed Duweir tell the same story of continuous struggle against aggression. It is uncertain if either town was walled as early as level H (TBM twentieth-nineteenth century B.C.). There was a city wall associated with level G-F (TBM nineteenth-eighteenth century B.C.) and an earth ramp or glacis marked an early stage of level E (TBM eighteenth-seventeenth century B.C.). In this connection it is useful to note the absence of bichrome ware decorated with birds, crosses and fishes, for at Tell Duweir this much discussed pottery followed on directly after the abandonment of the fosse and glacis defences. At Beit Mersim there is a slight indication of a stone and brick rampart in the Late Bronze Age, and during that time there are cult stands, which may suggest the presence of a temple. The total destruction which marks the end of the Bronze Age was equally violent at both sites.

The transition to the Iron Age in the second half of the thirteenth century was not a period of inactivity at Tell Beit Mersim, indeed reoccupation began almost immediately, as shown by the re-use of Late Bronze Age walls and foundations. This is in contrast to Tell ed Duweir where the area within the city seems to have been very sparsely inhabited for some time after the catastrophe.

There was no great change at Professor Albright's site until the destruction of some houses, and this devastation he attributed to attack by the Philistines. The presence of so-called "Philistine" sherds in some quantity is in agreement with a corresponding lack of them at Lachish, where only two worn sherds were found, and there is no indication at present of house construction on the larger mound between 1150 and 1000 B.C.

The casemate wall attributed to David's time (1000-960 B.C.) is well preserved in two long sections, and its earlier system compared in dimension and period with a similar construction at Beth Shemesh. This is in notable contrast to the three-tier system of recessed panels in brick and stone employed at nearby sites like Lachish in the following reigns, and it is the only apparent deviation in an otherwise parallel history of fortification.

Professor Albright traces the casemate principle to Asia



1. "Carry this standard in honour and in peace." With this injunction the District Commissioner, following the custom of former Turkish governors, enjoins the Sheikh to carry aloft the Nebi Mousa flag, first to the Mosque-El Aksa and later to the shrine of Moses overlooking the Jordan Valley.



2. Yemenite Jews eating the Passover with unleavened bread and bitter herbs. "Why is this night different from all other nights?" asks the youngest member of the family. "Because it is in memory of the release of Israel from bondage in Egypt?"



3. "And when Joseph had taken the body, he wrapped it in a clean linen cloth." Carrying a dummy body to the Stone of Unction and thence to the tomb. The most poignant ceremony conducted during Holy Week.



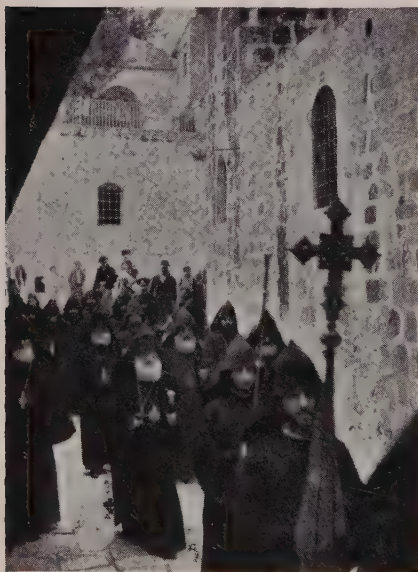
4. Tradition says it was on this marble slab that Christ's body was prepared for burial. Rosebuds are embroidered on the rich cloth covering the effigy of Our Lord on the Stone of Unction.



5. Palm Sunday. Distribution of palms before the entrance to the Sepulchre.



6. The ceremony of the Holy Fire. The Greek Patriarch emerges from the tomb with the sacred flame having already handed a torch to Mr. Keith-Roach, the District Commissioner of Jerusalem, consisting of thirty-three candles, one for each year of Our Lord's life on earth.



7. The Armenian Patriarch makes a solemn entrance into the Church of the Holy Sepulchre. Solemn entrances may only be made by the three Patriarchs—The Orthodox, the Latin and the Armenian. The black silk watered headdress symbolises Mount Ararat.



8. Sealing the Tomb. The District Commissioner, Mr. E. Keith-Roach holds the sealing wax before handing it to the Moslem door-keeper who has the right of fixing the seal on the door leading to the Tomb.



9. Easter Sunday reception in the Orthodox or Greek Patriarchate. His Beatitude the Greek Patriarch is seen seated on the Patriarchal throne. On his right is Mr. E. Keith-Roach, District Commissioner for Jerusalem.



10. The Abyssinian Abbot clothed in barbaric splendour sets out from his tent erected over the Chapel of St. Helena to search for the body of Christ.



11. Shielded by sacred umbrellas and preceded by drums, long barrel-shaped instruments, and the shaking of sestras, rattles similar to those used in the temple of Isis, the Abyssinians circumambulate three times round their chapel searching for the body of Christ.



12. "And He took the cup, and when He had given thanks, He gave it to them, saying 'Drink ye all of it.'" Before the Sepulchre a silver altar is set up and on Easter Sunday His Beatitute the Latin Patriarch celebrates Holy Mass. The elevation of the chalice.

Photographs by The Matson Photo Service, Jerusalem.

Minor and suggests it reached Palestine after the Hittite conquest in the fourteenth century, but there are no signs of its practical use in datable context before 1020 B.C.

There were many phases of repair to the walls and the two gateways before the destruction attributed to Shishak in 918 B.C. The city did not recover so quickly from this attack, but in its final phases every inch of living space within the walls was utilized to the best advantage. The West tower, which included an entrance, and the East gate show differences in construction and complicated sections of repair, which are a study in themselves. On analogy with Lachish, it would seem that the channels running transversely to the East gate took the drainage from the road area within the gate out under the threshold. The fall of Tell Beit Mersim occurred about 589-587 B.C. in the wanton devastation by fire caused by the Babylonians.

Professor Albright has added to our deep sense of obligation by his great service in presenting Chapter IV, by J. L. Kelso and J. Palin Thorley, on "The Potter's Technique at Tell Beit Mersim, particularly in Stratum A" (Iron Age II). When inclined to regret that the authors were unable to make a comprehensive study of the pottery from all sites, it is well to remember that their attention has been focussed on typical rather than outstanding pieces from a provincial town away from a busy trade route, and their conclusions are therefore all the more noteworthy. It is to be hoped that other potters will be induced to follow these lines in the study of ceramics from other sites and periods; the task is one for the craftsman rather than the archaeologist. The remark on page 106 is a case in point, where the field worker will no doubt defer gratefully to the authors' definition of "slip" and "wash." Various technical points are brought forward, and there is much useful observation of clay and temper, and method of firing, and further data for a future investigation of standard pottery sizes. Admittedly, Iron Age II at Tell Beit Mersim was the poorest phase of the potter's craft, the products were utilitarian, but the authors state that the forms are better than those of similarly employed commercial wares to-day. They go further and place the best Israelite workmen in competition with the Greeks. They grant the Israelites more life and

vitality and under Greek training they would have attained Greek refinements. "Thus the old view that the Israelites had no artistic skill must certainly be revised in the field of ceramics."

In order to obtain a complete picture of each phase of the town, which is presented in the four volumes of the *ASOR* in such detail, it is necessary to make close reference to the previous parts. For convenience, it would have helped the reader if the Table of Archaeological Periods, which is printed in Volume I, had been re-issued with a Summary in the present publication.

OLGA TUFNELL.

Studies in Divine Kingship in the Ancient Near East, xvi and 249 pp. By IVAN ENGNELL. Uppsala, 1943.

This book appears as the English version of a Swedish dissertation by one of the very active group of Scandinavian students of comparative religion; the author himself takes responsibility for the translation.

Translations by an author into a language not his own are apt to create difficulties, producing subtle changes of emphasis, begetting the suspicion that what the words mean for the reader of the translation is not always what the author meant by his words, and raising the general question whether the onus should rest upon the writer to make his contribution known in one or other of the best-known tongues or upon the reader to discover what contributions have been made in other tongues.

In the work before us such questionings remain far in the background. Further revision might have removed an occasional unidiomatic expression (e.g., "late" on p. 2), Gallicism ("constate," p. 84), ambiguity ("evidently," p. 48), or overworked idiom ("of course" is his maid-of-all-work); but the writer's meaning is never in any real doubt, and the reader has reason to be grateful for the labour the author has given himself in order to make his results known to some of those who would not read Swedish. Misprints are few and mainly confined to Semitic scripts and diacritic signs; paper and print are agreeable. A slight oddity in the matter of layout is the relegation to seventeen pages at the end of the book of twenty-three "Special Notes" which might with equal

convenience have come among the footnotes on their respective pages.

The author devotes a chapter each to the features of divine kingship in Egypt, where he accepts as true from the earliest times the identity of sun-god and king, in Mesopotamia, where he follows Hooke in interpreting the tree of life in the cult-scenes as representing the king-god and not the date-palm in process of being fertilized, in the Hittite area and in the West Semitic kingdoms generally. For the Old Testament, which is frequently referred to in an incidental way, Engnell has promised a separate treatment. The remaining materials for Western Asia and Anatolia are such that to produce an integrated result they must be treated as items to be fitted into the prevailing pattern. This procedure, however, has the disadvantage of tending to obscure just those features which produce the distinctive local variations from the general design. Thus the idea of the fertilization of the mother-goddess and consequently of the role of the king was very different in Anatolia from what it was in Canaan, and this produced no small change in the ritual and religious thought. The author is fully alive to the part played by disintegration and democratization in the evolution of a cult-pattern, and he avoids undue schematization in his account of beliefs which are essentially pre-logical in character, but it is possible that closer attention to the secular and administrative aspects of the kingly institution might have thrown further light on the question whether any given element is a genuine living and operative factor or a survival belonging to court style and usage. Thus 𐎕𐎗𐎕 as a royal attribute has reference not only to the righteousness of him who is νόμος ἑμψυχος, but also to the rightness of his relation, as holder or as crown-prince, to the throne, i.e., to his "legitimacy;" this latter aspect, not touched on by the author, is a fair example of the merging of the cultural and religious into the constitutional. On p. 83 Engnell clings to the disproved fifth century date for the Eshmunazar dynasty.

In two chapters devoted to the Ugaritian texts he translates and annotates those passages in which he finds traces of the king-god motif. The risk of finding in such a theme the key to every obscure text has to be guarded against, and the

desire to arrive at some coherent meaning for difficult passages has in one or two places taken the author beyond the limits of sound philology. But his general position in regard to the texts is sound, though few of those who have worked at them would care in the present state of our knowledge to accept every one of his identifications. For the general statement "divine king represents fertility god" is not always reversible, and many of the references to the fertility ritual have no inherent connection with kingship as such.

A twenty-three page bibliography, including a number of items not at present available in this country, concludes the work. All in all it is a useful and stimulating book, and will arouse much interest both in its contents and in further instalments in the scheme of publication Dr. Engnell has set himself.

A. M. H.

Early Babylonian Letters and Economic Texts. By J. B. ALEXANDER. (Babylonian Inscriptions in the Collection of James B. Nies, Yale University, Vol. III.)

This volume contains texts from two hundred and twenty-three tablets that come from various Babylonian sites; all belong to the period of the First Dynasty of Babylon, and cover slightly less than three centuries. There are sixty-two letters, nine belonging to the correspondence of Hammurabi which is now scattered over half a dozen collections, and the remainder are business documents of common types, including an interesting group from Sippar which were written at a time when that trading centre was not directly ruled by Babylon. The author has mentioned all the points of interest in a brief introduction, and has provided the indexes and catalogue usual in this series.

Though such texts might seem to have no direct bearing on Palestinian matters, improved understanding of the historical position between 1900 and 1600 B.C. shows that they are of value for the study of social conditions even in lands other than Babylonia. The cities of Akkad were at this time units in a vast system of city states spread over Assyria, Mesopotamia, and Northern Syria to the Mediterranean; the civilization in all of them was essentially identical, from

the Tigris to the Orontes valley. Only one point of direct importance for Biblical archaeology can be mentioned here. The term *habbatu*, "plunderers," which appears in the Amarna letters as the translation of SA.GAZ, the ideogram for *Habiru*, is not, to my knowledge, used in earlier documents at all, though the *Habiru* are mentioned in the time of Rim-Sin of Larsa. The text No. 93 in this volume provides an instance of *habbatu* in an enlightening connection. "Zalliya did not establish (by his evidence) that anyone took the two *habbatu*—men of Lu-igi-sa away. Zalliya is to pay two-thirds of a silver mina. (Four witnesses. Oath formula)." In this record of a legal decision the fine is inflicted presumably because two runaway slaves were found in Zalliya's house, and he was unable to prove that he was not responsible for their flight. The "bandits" are in the same position as the *Habiru* in the documents from Nuzu. The important point about this is the date, in the reign of Abisare, over seventy years earlier than the accession of Rim-Sin. No recent statement on the *Habiru* question will square with this new fact, in so far as such statements depend on the unproven dogma that *Habiru* is not, as its earliest occurrence, *Habiraia* would lead us to believe, a gentilic, but an appellative. In any case the *Habiru* were banditry, not "captives" or a social class within a settled community.

The editor's work has been so well done that it seems invidious to grumble; but an example may be quoted to show that the dogmatic insistence on transcriptions of cuneiform syllabic signs based on precise identification of Semitic consonants now common leads to positive error which the older fashion, admitting the arbitrariness of all transcription, avoided. The name written *Palziya* in No. 89 is transcribed in the index *Palšiya*; but it is certainly the same name as appears in the cuneiform alphabet of Ras Shamra as *Plsy*. The *tsade* is purely arbitrary and certainly wrong.

S. S.

The Committee acknowledge with thanks the following:

American Journal of Archaeology, XLVII, 4; XLVIII, 1.
American Journal of Philology, January to April, 1944.

The Antiquaries Journal, July–October, 1943, January–April, 1944.

Bible Lands, April, 1944.

The Biblical Archaeologist, December, 1943–February, 1944.

Bulletin of the American Schools of Oriental Research, December, 1943, February and April, 1944.

Expository Times, LV, 8–12, and LVI, 1.

Harvard Theological Review, January and April, 1944.

Jewish Quarterly Review, XXIV, 3 and 4, and XXV, 1.

Journal of Near Eastern Studies, Vol. III, 1 and 2.

Journal of the Royal Society of Antiquaries of Ireland, LXXIV, 1 and 2.

Religions, July, 1944.

Scottish Geographical Magazine, June and September, 1944, and Index to Vols. 58 and 59.

Proceedings of the Royal Canadian Institute Session, 1942–43.

Transactions of the Royal Canadian Institute, October, 1943.

Coptic Texts in the University of Michigan Collection. Edited by William H. Worrell.

Iraq Supplement, 1944. Iraq Government excavations at 'Aqar Quf, 1942–1943.

Quarterly of the Palestine Department of Antiquities, Vol. XI, Nos. 1–2 and Index to Vol. X.

0000-10-2225
PALESTINE EXPLORATION FUND

ANNUAL REPORT

AND ACCOUNTS

WITH

LIST OF SUBSCRIPTIONS

FOR THE YEAR 1944

PALESTINE EXPLORATION FUND
2 HINDE STREET, MANCHESTER SQUARE, LONDON, W.1

THE PALESTINE EXPLORATION FUND

SOCIETY FOR THE ACCURATE AND SYSTEMATIC INVESTIGATION OF THE ARCHAEOLOGY, THE TOPOGRAPHY, THE GEOLOGY AND PHYSICAL GEOGRAPHY, THE MANNERS AND CUSTOMS OF THE HOLY LAND, FOR BIBLICAL ILLUSTRATION.

FOUNDED 1865.

PATRON—HIS MAJESTY THE KING.

PRESIDENT—

VICE-PRESIDENT—HIS GRACE THE ARCHBISHOP OF YORK.

The Society was established on the basis of the following rules :—

1. It was not to be a religious society. That is to say, it should be pledged not to advocate or attack any form of creed or doctrine.
2. It was not to adopt or to defend any side in controversial matters.
3. It was to be conducted on strictly scientific principles.

These rules have been jealously observed. The Society's organ, the PALESTINE EXPLORATION QUARTERLY, is open to all opinions, while it records as facts only the actual discoveries and results of its exploring officers. Although the Society is not a religious society, strictly so called, its work necessarily possesses unusual interest for Bible Students of all denominations, who find in the results obtained by exploration much that confirms and illustrates the historical truth of both the Old and New Testaments. In the course of its existence, the Society, with limited funds at its disposal, has done an immense amount of work, and published the results in books, papers, maps, plans and photographs, primarily for the benefit of its subscribers, and for the advantage of students of the Sacred Scriptures.

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Hon. Secretary—REV. C. B. MORTLOCK, M.A., F.S.A.

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PROF. STANLEY A. COOK, LITT.D., F.B.A.

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REV. CANON H. DANBY, D.D.

G. M. FITZGERALD, Esq., M.A., F.S.A.

PROF. J. GARSTANG, M.A., D.Sc., F.S.A.

PROF. S. H. HOOKE, M.A., B.D. (*Editor*).

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K.C.B., D.LITT., LL.D., F.B.A.

MISS KATHLEEN KENYON, M.A., F.S.A.

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SIR JOHN MYRES, D.LITT., M.A., F.B.A.

COL. S. F. NEWCOMBE, D.S.O.

COL. F. J. SALMON, C.M.G.

MISS OLGA TUFNELL

VERY REV. THE DEAN OF WESTMINSTER

Assistant Secretary—G. J. H. OVENDEN.

Office—2 Hinde Street, Manchester Square, W.1.

Bankers—MESSRS. COUTTS AND CO., 16 Cavendish Square, London, W.1.

Auditors—MESSRS. TORQUAND, YOUNGS, MCAULIFFE AND CO., *Chartered Accountants*, 19 Coleman Street, London, E.C.2.

The privileges of Subscribers are as follows :—Annual Subscribers of *One Guinea* (£1 : 1 : 0), or more, will receive the PALESTINE EXPLORATION QUARTERLY, and can purchase other publications of the Fund and of the British School of Archaeology in Jerusalem at reduced prices. Annual Subscribers of not less than *Two Guineas* (£2 : 2 : 0) to either the Palestine Exploration Fund, or the British School of Archaeology in Jerusalem, or of One Guinea to each, will receive the QUARTERLY and the Memoirs and Annuals of both institutions as published, gratis.

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PALESTINE EXPLORATION FUND

ANNUAL REPORT FOR THE YEAR 1944

IN the Annual Report for the year 1942 it was mentioned that the then Archbishop of Canterbury, the Most Reverend Dr. William Temple, had accepted the office of President of the Palestine Exploration Fund. Now, alas, in presenting the Report for 1944, we have, with the deepest regret, to record Dr. Temple's death. The Fund will approach the newly appointed Archbishop, Dr. Geoffrey Fisher in the hope that he may be willing, in succession to so many of his distinguished predecessors, to accept the office of President.

During the continuance of the war it has, of course, been impossible to carry out any practical work of discovery and excavation in the Holy Land, and it is, perhaps, to be expected that, even after the war, it may be some little time before the country is in such a state as to permit a resumption of such work. But the members of the Executive Committee of the Fund bear in mind the purpose for which the Fund was founded eighty years ago, and which it has since done its best to fulfil, and they will use every endeavour to initiate, or take part in, such activities as may be found possible in the future. And, as bearing on this intention, it is to be noted that the Fund took a prominent part in assembling a representative and influential body of persons interested in the archaeology of the Near East and the Mediterranean area to discuss the future of archaeology in those regions. Representatives of eight societies attended the meetings, under the chairmanship of Mr. J. W. Crowfoot, C.B.E., F.S.A. The meetings were held on 15th December, 1944 and 19th January, 1945. This Conference approved a draft statement which was subsequently accepted in principle by the Societies concerned. The Statement dealt with the protection of monuments and antiquities, with the question of Government financial support for the work of archaeology abroad, and the appointment of Committees for advice and co-ordination of research.

The Executive Committee of the Fund has elected Mr. J. W. Crowfoot, C.B.E., F.S.A. as its Vice-Chairman. Mr. Crowfoot has had great experience of archaeological research in Palestine, particularly at Jerash, Samaria, and Jerusalem, and, as mentioned above, presided at the recent conference of the archaeological societies.

The year 1944 ended with a financial situation with which subscribers to the Fund can, in the circumstances ruling be on the whole satisfied, although in the face of two or three relatively large payments which had to be deferred to the beginning of 1945 it is not quite so satisfactory as the figures suggest. The war has necessarily greatly curtailed the activities of the Fund and in consequence has to some extent kept down its expenditure. The balance of receipts and payments for the year 1944 must not however be considered normal even apart from the postponed payments, for, with the return of settled conditions, the Fund will have to apply itself to a number of undertakings involving expenditure. Although this can be foreseen, the means of defraying their cost is not at the moment so obvious. One assistance towards that end could be given by more subscribers in Great Britain at no cost to themselves, having recourse to the system of covenanted subscriptions. All relative information can be obtained from the Assistant Secretary of the Fund. Only £76 was received from this source (i.e. recovery of income tax) during the year whereas it would seem from the list of subscriptions that this total could be doubled to the advantage of the Fund and the disadvantage of none of the subscribers.

The Committee wish to thank the contributors of articles and reviews which have appeared in the *Palestine Exploration Quarterly* during 1944, especially Mrs. Crowfoot, Mrs. S. Ben-Dor, Dr. A. S. Birnbaum, Lieut.-Col. N. P. Clarke, Mr. D. H. Kellner, Mrs. M. E. Kirk, Mr. A. Lucas, Dr. L. A. Mayer, Mr. H. J. Shepstone and Dr. E. L. Sukenik.

Signed on behalf of the
Executive Committee,
5th April, 1945.

C. F. ARDEN-CLOSE, *Chairman*.
C. B. MORTLOCK, *Hon. Secretary*.

PALESTINE EXPLORATION FUND, 1944

BALANCE SHEET, 31st DECEMBER, 1944

LIABILITIES.

	£	s.	d.	£	s.	d.
CAPITAL :—						
<i>Authorized</i> —200 Shares of £1 each	200	0	0			
<i>Issued</i> —10 Shares of £1 each, not called						
SUNDRY CREDITORS for Current Expenses				107	8	2
ARCHAEOLOGICAL SURVEY OF PALESTINE				31	6	8
SURPLUS OF ASSETS OVER LIABILITIES—						
(Excluding donated property) as per last Balance Sheet ..	2,629	13	11			
Add : Excess of Income over Expenditure for year ..	367	13	10			
				2,997	7	9
				£3,136	2	7

ASSETS.

	£	s.	d.	£	s.	d.
FREEHOLD PROPERTY—DONATED—No. 2 Hinde Street (estimated value £5,000) ..	1,188	17	5			
ALTERATIONS AND IMPROVEMENTS No 2 Hinde Street, as per last Balance Sheet ..						
MUSEUM, LIBRARY AND STORE-ROOM: FIXTURES, FITTINGS, FURNITURE, etc., as per last Balance Sheet	382	2	7			
JEWISH COLONIAL TRUST—DONATED—50 Ordinary Shares of £1 each, fully paid ..						
STOCK OF PUBLICATIONS, MAPS, BOOKS, MODELS, LANTERN SLIDES, LIBRARY, ANTIQUES, etc.						
SUNDRY DEBTORS	46	1	2			
SUBSCRIPTIONS IN ARREAR	24	13	6			
£700 3-per cent. Defence Bonds	700	0	0			
£50 3-per cent. Savings Bonds, 1955-65 P.O. Issue	50	0	0			
CASH AT BANK*	£736	5	9			
CASH IN HAND	8	2	2			
				744	7	11
				£3,136	2	7

* *Note.* Includes £25 donated in 1939, and not yet expended, for the purchase of Committee Table in memory of the late H. Coote Lake, Esq.

C. F. ARDEN-CLOSE, *Chairman.*
A. M. HYAMSON, *Hon. Treasurer.*

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st DECEMBER, 1944

RECEIPTS.				£	s	d.	£	s	d.
To	Balance 31st December, 1943	..	..	..	..	..	265	5	10
„	Subscriptions and Donations, including Local Societies	..	..	..	..	..	395	6	11
„	Refund of Income Tax on Covenanted Subscriptions	..	..	..	..	..	76	7	0
„	Sale of Publications	..	..	..	..	..	127	5	9
„	Rent	..	..	..	..	..	350	0	0
„	Dividend on £700—3 per cent. Defence Bonds	..	..	..	21	0	0		
„	Dividend on £50 3-per cent. Savings Bonds	..	..	..	1	10	0		
							22	10	0
							1,236	15	6
„	Transfer of Balance of Account of Archaeological Survey of Palestine	..	..	..	31	6	8		
							£1,268	2	2
							£	s	d.
Receipts for year, as shown above		..	..	..	..	..	971	9	8
Less : Arrears of last year's subscriptions, etc., received during 1943		..	..	..	..	..	71	7	6
							900	2	2
							70	14	8
							970	16	10

PAYMENTS.										£	s.	d.
By	Printing, including Quarterly, Annual Report, Postages and Despatch	..	..	..	..	..	..	..	..	112	7	10
22	Editor's fee..	..	..	..	..	..	..	..	..	50	0	0
22	Purchase of books and bookbinding	..	..	..	..	..	..	..	..	4	6	6
22	Repairs	..	..	..	..	..	..	..	..	4	4	0
22	Salaries and Wages (including National Insurance)	..	..	..	..	..	..	..	..	269	12	4
22	Postages and Telephone	..	..	..	..	..	..	..	..	16	1	3
22	Fire Insurance	..	..	..	..	..	..	..	..	7	5	6
22	Water Rate, etc.	..	..	..	..	..	..	..	..	15	16	0
22	Lighting and Heating	..	..	..	..	..	..	..	..	5	9	11
22	Stationery and Sundries	..	..	..	..	..	..	..	..	8	19	9
22	Audit Fee	..	..	..	..	..	..	..	..	5	5	0
22	Expenses arising directly out of the state of war :											
	War Damage Insurances	..	..	..	..	..	..	..	..	16	16	2
	Fire Guard Group Contribution	..	..	..	..	..	..	..	..	7	10	0
										24	6	2
										£523	14	3
Balance at 31st December, 1944 :												
	At Bank	..	..	..	..	..	..	..	..	736	5	9
	In hand	..	..	..	..	..	..	..	..	8	2	2
										744	7	11
										£1,268	2	2
Payments for year, as shown above												
	Less : Creditors at 31st December, 1943, paid during 1944	..	..	..	..	..	..	..	..	523	14	3
										27	19	5
										495	14	10
	Add : Creditors at 31st December, 1944, as shown by Balance Sheet	..								107	8	2
										603	3	0
	Excess of Income over Expenditure	..	..	..	..	..	..	..	..	367	13	10
										£970	16	10

AUDITOR'S REPORT TO THE MEMBERS OF THE PALESTINE EXPLORATION FUND.

We report that we have obtained all the information and explanations we have required as Auditors. We have examined and compared the above Balance Sheet and the Receipts and Payments Account with the books and vouchers of the Fund, and, in our opinion, they are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Fund, according to the best of our information and the explanations given to us and as shewn by the books of the Fund.

19 COLEMAN STREET,
LONDON, E.C.2.
18th May, 1945.

TURQUAND, YOUNGS, McAULIFFE & CO.
Chartered Accountants.

LIST OF SUBSCRIPTIONS AND DONATIONS

RECEIVED BETWEEN 1ST JANUARY AND 31ST DECEMBER, 1944, INCLUSIVE

* Asterisks denote covenanted subscriptions

If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next Annual Report.

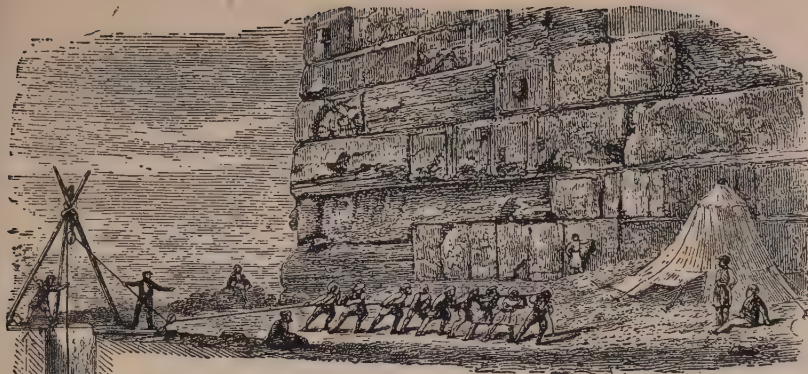
	£	s.	d.		£	s.	d.		£	s.	d.
Adler, E. N., Esq. . .	0	10	6	Brought forward	89	0	11	Brought forward	158	12	0
*Alford, Miss M. . .	2	2	0	*Garstang, Prof. J. . .	2	2	0	California University	0	10	0
*Ardon-Close, Sir Charles	2	2	0	*Gentle-Cackett, Rev. S. W. 1	1	0	0	Carnegie Library, Pitts-			
Armitage, Robert, Esq.	2	2	0	Gibson, David, Esq. . .	3	3	0	burg	0	10	0
Ashmole, Prof. B. . .	1	1	0	Gibson, Mrs. . .	2	2	0	Catholic Univ. of			
*Barham, S. P., Esq. . .	1	1	0	Goadby, Dr. F. M. . .	1	1	0	America . . .	1	0	0
*Barnett, Mrs. H. A. Lake	2	2	0	*Gold, Mrs. . .	1	1	0	Colgate Rochester			
*Barnett, R. D., Esq. . .	1	1	0	*Goodenough, Admiral				Divinity School . .	1	1	0
Barris, Prof. G. . .	3	3	5	Sir W. . .	1	1	0	Columbia University	1	1	0
Barron, Mrs. . .	1	1	0	Gurney, Oliver, Esq. . .	1	1	0	Cone Memorial			
Bate, Miss D. M. . .	1	1	0	Graf, Rev. E. . .	1	1	0	Y.M.C.A. . .	1	3	0
*Bayley, Arthur R., Esq.	2	2	0	*Hammond, Col. F. S. .	2	2	0	Copenhagen Royal			
Beasley, W., Esq. . .	2	2	0	*Haycroft, Lady . . .	1	1	0	Library . . .	4	4	0
Becke, Major A. F. . .	1	1	0	Hayman, Miss B. M. .	1	1	0	Cornell University . .	1	1	0
Belmore, The Earl of	1	1	0	Hertz, the Very Rev. J. H.	1	1	0	Davidson College . .	1	1	0
*Bentwich, Prof. N. . .	1	1	0	*Hindley, Miss R. C. .	1	1	0	Duke University . .	1	1	0
*Berlin, M., Esq. . .	1	1	0	Hindley, R. T., Esq. .	1	1	0	Durham University	2	2	0
Birnbaum, Dr. S. . .	1	1	0	Heath, Rev. Alban . .	1	1	0	Eastern Baptist Theol.			
Blair, Dr. D. P. . .	1	1	0	Hinke, Prof. W. . .	2	8	6	Seminary . . .	1	1	0
Blyth, Miss Estelle . .	1	1	0	*Hippisley, Miss E. . .	1	1	0	Harvard College . .	1	1	0
*Boulton, W. H., Esq.	1	1	0	Hollis, Miss E. . .	1	1	0	Harvard University . .	1	1	0
Bramwell, W., Esq. . .	1	1	0	Hollis, Rev. Dr. F. J. .	1	1	0	Haverford College . .	1	1	0
Bristow, Ernest, Esq.	2	2	0	*Hooke, Prof. S. H. . .	1	1	0	Hebrew Union College	2	2	0
Brown, James, Esq. . .	2	2	0	Hutton, Rev. W. R. . .	2	3	0	Heythrop College . .	1	1	0
Bugbee, Dr. L. . .	2	2	0	*Hyamson, A. M., Esq.	1	1	0	Iliff School of Theo-			
*Bushell, W. F., Esq. . .	1	1	0	Johnson, Mrs. . .	2	2	0	logy . . .	1	1	0
Bussy, Rev. F. . .	1	11	6	*Johnson, Rev. Lewis	1	1	0	Illinois University . .	1	1	0
Buxton, Dr. P. A. . .	1	1	0	*Kenyon, Miss K. M. .	1	1	0	Istanbul University . .	1	1	0
*Caiger, Rev. S. . .	1	1	0	Kenyon, Sir Frederic	1	1	0	Jewish Theol. Seminary	1	1	0
Cairns, Mrs. . .	0	10	6	Kiewe, H. E., Esq. . .	1	1	0	Jews College . . .	0	10	6
*Carter, John, Esq. . .	2	2	0	Kirk, Lt.-Col. G. E. .	1	1	0	John Rylands Library	1	1	0
*Caullie, Lt.-Col. A. G.	1	1	0	de Knevett, E., Esq. .	2	2	0	Leeds Library . . .	1	1	0
Cerny, Rev. E. A. . .	1	1	0	*La Page, John, Esq. .	1	1	0	Leeds University . .	1	1	0
Chalmers-Hunt, D. R.,				Lee, Rev. E. J. . .	0	10	6	London University . .	1	1	0
Esq. . .	1	1	0	Lee of Fareham, Viscount	1	1	0	Los Angeles Public			
*Clarke, Col. N. P. . .	1	1	0	*Lees, G. M., Esq. . .	1	1	0	Library . . .	1	1	0
Crabtree, Rev. W. A. .	2	2	0					McGill University . .	1	1	0
*Crace, Mrs. . .	2	2	0	Libraries—				McMaster University	1	1	0
Crawford, L., Esq. . .	1	1	0	Aberdeen University	1	1	0	Manchester College,			
Crawford, O. G. S., Esq.	1	1	0	Allegheny College . .	1	1	0	Oxon. . .	3	3	0
*Crowfoot, J. W., Esq.	1	1	0	Alleyns School . . .	1	11	6	Manchester Univer-			
Curwen, B. H., Esq. .	1	9	0	Alma College . . .	1	1	0	sity . . .	1	1	0
Curwen, Dr. E. Cecil	1	1	0	American Philosophical				Mansfield Coll., Oxon.	1	1	0
Curwen, Dr. Eliot . .	2	2	0	Society . . .	1	1	0	Mary Baldwin College	1	1	0
*Daiches, Dr. S. . .	1	1	0	American University				Metropolitan Museum			
*Davies, Miss A. M. . .	1	1	0	Beirut . . .	1	1	0	of Art . . .	1	1	0
Dirk, Pons & Co., Messrs.	1	1	0	Amherst College . . .	1	1	0	Michigan University	2	2	0
Driver, G. R., Esq. . .	2	2	0	Armagh Library . . .	1	1	0	Moody Bible Institute	1	1	0
Duckworth, Lt. H. F.	1	1	0	Ashland College . . .	1	1	0	Mount Hoylake Col-			
Du Boulay, Brig.-Gen.				Ashmolean Museum	1	1	0	lege . . .	1	1	0
W. H. . .	1	1	0	Bangor Theol. Semin-				Nashota House Library	2	2	0
*Edwards, Rev. A. H. .	1	1	0	ary . . .	2	0	0	New College, London	1	1	0
Evans, E. M. P., Esq.	1	1	0	Berkeley Bap. Div.				New York Public			
Falconer, Harold, Esq.	1	1	0	School . . .	1	1	0	Library . . .	1	1	0
*Finn, Miss C. M. . .	1	1	0	Birmingham Public				Newcastle-upon-Tyne			
*FitzGerlad, G. M., Esq.	2	2	0	Libraries . . .	1	1	0	Library . . .	2	2	0
Fleming, Andrew, Esq.	2	2	0	Boston Public Library	1	1	0	Newton Theol. Institu-			
Fothergill, Dr. C. . .	2	2	0	Bradford City Library	1	1	0	tion . . .	2	1	0
*Frank, Miss Helena . .	2	2	0	Bristol Libraries . .	1	1	0	Northwestern Univer-			
Freshfield, the Misses	1	1	0	British Columbia,				sity . . .	1	1	0
Fuller, Rev. R. C. . .	1	1	0	Union College of	1	1	0	Oberlin College . .	1	1	0
*Gailitis, Miss L. . .	1	1	0	Brooklyn Inst. of Arts				Ottawa, Parliament			
Gamble, Rev. H. J. . .	1	1	0	and Sciences . . .	1	1	0	Library . . .	1	1	0
*Gardiner, Dr. A. H. .	2	2	0	Brown University . .	2	2	0	Pacific School of Re-			
*Garner, Rev. H. . .	1	1	0	Bucknell Library . .	1	1	0	ligion . . .	2	2	0
*Garnett, Rev. T. A. .	1	1	0	Butler University . .	1	1	0	Peabody Institute . .	1	1	0
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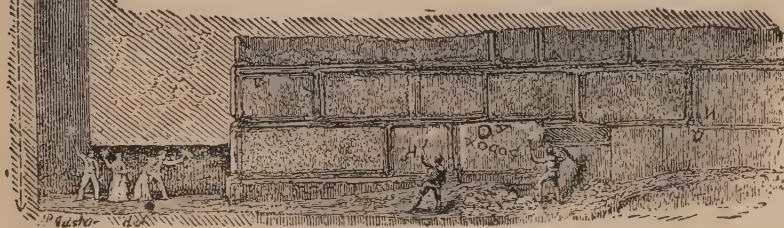
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THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS

In Memoriam

HIS GRACE THE LORD ARCHBISHOP OF CANTERBURY
THE MOST REVEREND WILLIAM TEMPLE, D.D.
President of the Palestine Exploration Fund
since 1942
DIED OCTOBER 24, 1944

The Palestine Exploration Fund records with deep regret the loss of its President, His Grace the Lord Archbishop of Canterbury, the Most Reverend William Temple, D.D. At a meeting of the Executive Committee on 21st March, 1945, it was

RESOLVED : That the Committee place on record its profound sense of loss which the Palestine Exploration Fund has sustained by the death on 24th October, 1944, of its President, His Grace the Lord Archbishop of Canterbury, the Most Reverend William Temple.

His Grace, who became President in 1942, was the successor in that office of a line of Primates who recognized the value of the work done by the Fund and particularly in its bearing on Biblical studies. The loss of Dr. Temple's profound wisdom and inspiring leadership in a world beset by strife and difficulty is immeasurable, for the times need the wisest counsels to restore faith in the highest principles and to repair the ravages of war.

AT the time when the last issue of this Journal appeared there seemed some hope that it might be the last of the war numbers. But the turn of events has frustrated this hope, and we still wait in patience. So long a period of cessation of all archaeological activity, save in a very few favoured localities, has made it difficult to find material for the needs of the Journal. Now, at the last, the cupboard is quite bare, and we must appeal to the friends of the *Palestine Exploration Quarterly* to come to our help and replenish the exhausted stock of material. Our deepest thanks are due to those who, in the midst of many exacting duties, have found time to contribute valuable articles and thus make the continued appearance of the Journal possible.

In the *Jewish Quarterly Review*, vol. XXXV, No. 1, there appeared last year an article by Professor A. S. Yahuda which should create some stir among Semitic epigraphists. It is an attack on the genuineness of the famous stele of Mesha, King of Moab, generally known as the Moabite Stone. The article contains some curious revelations of the ingenious and impudent methods of the forgers of antiques who operate in Egypt and Palestine. It may be remembered that the late Professor D. S. Margoliouth of Oxford, nearly forty years ago, wrote an article in the *Expository Times* questioning the genuineness of the then recently discovered Elephantine Papyri. The documents in question survived the attack. It will be interesting to see whether the revision of the whole question, called for by Professor Yahuda, of the authenticity of this ancient stone of stumbling will disturb its position.

The Harvard Theological Review for July, 1944, contains an important article by the eminent papyrologist, H. Idris Bell, on the *Evidences of Christianity in Egypt during the Roman Period*. Mr. Bell arrives at the conclusion "that even in the second century the number of Christians in Middle Egypt was by no means negligible and by the middle of the third was considerable." He points out that the evidence of the Biblical and theological papyri "combines with *a priori* probability and the literary sources to make it likely that, although in the

second century Christians formed only a small minority of the population and even till late in the third century were probably not a large one, yet the transition from an overwhelmingly pagan country to the predominantly Christian one which we find in the fourth was by no means as sudden and cataclysmic as some writers have too hastily assumed." Apart from its significance for the early history of Christianity, this conclusion has a special interest in connection with the growing tendency to seek an Alexandrian provenance for the Fourth Gospel.

The much vexed and long discussed problem of the chronology of the Kings of Israel and Judah receives further discussion and fresh light from a very full and learned article on this subject in the *Journal of Near Eastern Studies* for July, 1944, by Edwin R. Thiele. It will be of interest and value to all students of Old Testament history.

An interesting series of articles begins with the September issue of the *Biblical Archaeologist*. Introduced by the Editor, Professor G. E. Wright, it will deal in four parts with the place of the ancient temple in community life. In the Editor's words, it will be an attempt "to penetrate the conceptual life of the ancient world and to interpret its modern relevance." The first two parts appear in the present issue (September, 1944), part I dealing with the Egyptian Temple, by Professor H. N. Nelson, and the second dealing with the Mesopotamian Temple, by Dr. Leo Oppenheim. They are both exceedingly interesting, reliable, and well-illustrated. This valuable little Journal is going from strength to strength, and should be read by all students of Biblical archaeology and of the Old Testament.

The Conference on the Future of Archaeology, held in London in August, 1943, has issued its report in the form of one of the Occasional Papers of the London Institute of Archaeology. It is a very valuable collection of addresses and discussions on every aspect of archaeology. Behind all its discussions and findings there lies the sense of an urgent need to educate the public, beginning with the schools, in the importance of archaeology. In the apposite words of Sir

Cyril Fox, "The study of man-in-society, when the significance of the results is properly appreciated, may save men from a second darkness." There is much wit, as well as wisdom, in the report. Under the title of Occasional Paper No. 5, it may be obtained from the University of London Institute of Archaeology, Inner Circle, Regent's Park, London, N.W.1, at the price of three shillings and sixpence.

It is a sign, like Noah's dove, of the near return of peace, that the Greek periodical, *New Sion*, should have reached us again after a break of five years. It will be of interest to those who read modern Greek, and the latest number is even ahead of the *Palestine Exploration Quarterly* in that it contains a review of Professor Albright's latest book, *The Archaeology and Religion of Israel*, which we have not been privileged to receive for review. May we take this occasion to say how welcome contributions from the abundant stores of scholarship in which our friends in the United States are so rich, will always be, and just now they would be doubly welcome as a most acceptable form of Lend-Lease at a time of need.

THE PALESTINE EXPLORATION FUND ANNUAL GENERAL MEETING (for business purposes only) will be held at 2 Hinde Street, Manchester Square, London, W.1, at 3.30 p.m. on Friday, 29th June, 1945.

THE BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM BUSINESS MEETING OF SUBSCRIBERS will be held at 2 Hinde Street, Manchester Square, London, W.1, at 2.30 p.m., on Friday, 29th June, 1945.

BRIEF NOTES

BY G. R. DRIVER

(I) A NEW ISRAELITE SEAL

THE Ashmolean Museum has recently obtained an interesting seal (Ashm. 1943, 2) by the gift of Miss Begg, of Oxford, and it is here published by the permission of the Keeper of the Museum.

This seal is cut in red jasper and is oval (Plate I; scale 2:1); it is almost perfect, except that a small piece has been chipped off at each end in such a way that one letter of the legend is lost. The text, which is surrounded by a single line on the outside and is divided into two equal parts by three lines drawn across the centre, reads

למקניהו " (Belonging) to Mikneiah
[בן] יחומלק son of Yehomelek."

The name of the owner is already known from the Old Testament (1 Chron. xv, 18, 21), but that of the father is new; it belongs, however, to a well-established type of Hebrew name, exemplified in אלימלך and soon (s. Noth, *Personennamen* 141-3).

The donor knows nothing of the history of this seal, but it can confidently be assigned to the group of Israelite seals of the eighth-seventh centuries B.C., of which something over a hundred examples have already been published (Diringer, *Iscrizioni*, 159-261) and of which yet others may be expected to follow.

(II) NOTES ON OLD INSCRIPTIONS

(I) HEBREW

Dr. Ginsberg (in *Arch. Orient.* VIII, 146-7) suggests that in the Calendar from Gezer ירח is a nominative dual construct form; as then this occurs four times and the singular ירח occurs the same number of times, he obtains ($2 \times 4 =$) 8

+4=12 months, which may be arranged in the following way (cp. Dalman *Arbeit u. Sitte* I i 7):

ירחו אסף "two months of ingathering"=September-October
 ירחו זרע "two months of sowing"=November-December
 ירחו לקש "two months of late sowing"=January-February
 ירח עצד פשתה " (one) month of reaping flax "¹=March
 ירח קצר שעורם " (one) month of harvesting barley"=April
 ירח קצרו כל " (one) month (?) " =May
 ירחו זמר "two months of pruning"=August-September(?)
 ירח קץ " (one) month of summer-fruits"=August or September

Thus twelve months are rightly obtained, if not without difficulty, even though they may not cover the whole year.

There is no objection to the dual form, since the Arabic nominative dual construct ending is -*â*, and this vowel becomes *ô/û* in Hebrew-Phoenician words, but קצרו may perhaps be best explained, as a pupil has suggested to me, as a plural verb, so that ירח קצרו כל must be translated " (one) month (when) everything is harvested."²

But "a month when everything is harvested" seems an unlikely general expression in a calendar which otherwise refers only to particular agricultural operations; further, no one seems to have regarded אבי running downwards from the end of the line. I therefore suggest reading ירח קצרו כל אביב "month when all the spring-fruits are harvested." In the strict sense אביב was the fresh or tender young plants when the grain had not yet hardened in the ear and become ripe to be reaped, whence April was called חדש האביב "the month of (corn in) the fresh ear" (Exod. xiii, 24), namely spring or early summer; there seems then to be no reason why אביב should not connote also "spring-fruits" or the fruits of early summer, just as ק(י)ץ " (high) summer" connotes also "summer-fruits" (Am. viii, 1, 2 +) and even the "fruit-harvest"

¹ Flax is now generally pulled, not reaped (Dalman, *Arbeit u. Sitte* III, 36).

² The verb then is in the indefinite plural third person of the active used periphrastically for the passive voice; for it is unlikely that the dual ending in ירחו will have retained its force if the singular ending in קצרו had not yet lost it.

(Jer. viii, 20). So Ephraem Syrus translates מועד חדש האביב (Exod. xxxiv, 18) by אֶבְיָן וְאֶבְיָן "the time of fruits" (Payne-Smith *Thes. Syr.* I s.v. אֶבְיָן).¹ If then אביב, which in the narrower sense denotes the month of April, may be taken also in a wider sense as denoting the fruits of the early summer, such will include cucumbers, lentils and beans in May, (Dalman, *op. cit.*, II, 5) with early figs and apples in June (Tristram, *Natural History of the Bible*, 352; Thomson, *Land and Book*, 546-7); and others can probably be added to the list, some earlier and some later according to the locality.

Another difficulty has been found in זמר "pruning (of vines)," since vines are normally pruned when winter is over, between the end of January and the beginning of March (Dalman, *op. cit.*, I i, 418-20, correcting 7), and its position in the Calendar posulates an autumnal operation. But is this objection necessary fatal? The vintage in low-lying districts begins as early as July (Post in Hasting's *D.B.*, IV, 869), even though it usually runs from the beginning of September in the warmer valleys to the end of October in colder situations (Tristram, *op. cit.*, 408), and pruning may start so soon as the grapes have been harvested (Dalman, *op. cit.*, IV, 330-1).² The זמר ירחו may then well have been the months when pruning began, approximately August-September, and so be not improperly put before the ירח קץ which too may be assigned to August or September. There is no more reason to expect absolute accuracy than completeness in a Calendar

¹ If the Acc. *ebēbu* "to be bright" is the root, then the Hebr. אֶבְיָן will have meant originally plants whose foliage was bright, namely which were tender or fresh; it will then easily have come to be used for the season when plants were in this condition, namely April, from which its use will have been extended to the fruits generally of early summer. The Syr. אֶבְיָן "fruits" and the Arab أَب "whatever grows on the face of the earth" represent the final stage in the semantic development of the root; the Aram. אֶבְיָן (=אֶבְיָן) "fruit" is a dissimilated form from this root. The Acc. *unnubu* "to bear fruit" and *inbu* "fruit," however, are cognate with the Hebr. עֵנָב "grapes." The *scriptio plena* may be explained as one to the fact that עֵנָב is from a geminate root.

² In Ct. ii, 12 זמר must mean "song" and not "pruning," since the reference is obviously to May, when the rains are over and the flowers are out, which is too early for pruning (Dalman, *op. cit.*, I, ii, 331-2, 441-2).

betraying such obvious omissions as wheat and olives; in any case, as already said, it cannot be made to comprise all the months of the year, however they are reckoned.

POSTSCRIPT

The Editor has just drawn my attention, long after the completion of this note and just before its publication, to Prof. Albright's article in *BASOR*, XCII, 16-26 (which I had missed owing to absence from Oxford on national service) on the Calendar from Gezer.

I find Prof. Albright's suggestion that the inscription may have been a school exercise very attractive, and I am glad that he accepts the explanation of the mysterious ך in ירחו as a du. ending. I find, however, great difficulty in the rest of his explanation. First, I submit that ירחו cannot have been read *yarhêw*, since the *y* must surely have been written, as in the Aram. ירחה (Zinjîrlû) and יריהם (Asshur) and the Moab. שעררה, while the only evidence of a plur. ך occurs in the Phoen. fem. שנתו (Byblos) and subsequently also in the masc. ימו (Byblos, Tyre). Similarly, if it is read *yarhō* as a nom. du. form, it must have been written *plene*, as the obl. (du.) case is always so written, as in the Aram. מלכי (Zinjîrlû) and the Moab. and Phoen. ימי; the only evidence for the omission of the ending is the peculiar Phoen. פן (Byblos; *Klmw*), which may not have been regarded as a plur. form (cp. Acc. *lapān* "before"). I can recall no certain case of the omission of the du. or plur. constr. ך in an early and original text, and doubt very much therefore if the du. ך can have been omitted at any period of its existence. Second, Prof. Albright's interpretation of ירח as *yarhō* "his month" is open to the serious objection that the suffixed pronoun, then written presumably ה and not ך, is not known ever to have been omitted; this is a consonantal ending, not a mere short vowel like the sing. case-endings. Third, if these words are read *yarhêw* "his two months" and *yarhō* "his month," to whom do the pronouns refer? The passages cited in support of the pronoun are not to the point, since in each there is an antecedent (1 Kings v, 7, where it is each prefect in turn; Numb. xxviii, 14, and Is. lxvi, 23, where it is the month—each month "by its month", that is "in its turn").

Prof. Albright, further, in objecting to Dr. Ginsburg's view that ך represents *ā* or *ō* as the old nom. du. ending, disposes of it by saying that "there are no equally ancient occurrences of *waw* as a vowel-letter and the survival of the old nominative construct state is otherwise wholly without parallel in North-West Semitic." His du. ך =-*ēw* is equally unparalleled, so far as I can discover; and the survival of -*y* in the obl. constr. state is exactly parallel to that of the -*w* in the nom. constr. state, with the sole difference that the obl. case ousted the nom. case, as in many languages.

Is then the du. nom. case so extinct as Prof. Albright thinks? I am inclined to suggest the following table

	Judaean	Ephraemite	N.E. Canaanite
Nom.	הַעֲנַם (Shephelah)	עֵינָן (Naphtali)	עֵינָן ¹ (חֲצֵר) (Ḥצר)
Obl.	הַעֲנִיִּים	[<i>énain</i>]	[<i>énain</i>]

in illustration of the old du. declension. It is also suggestive to compare such place-names as עֵינָן and עֲגִלִּים (merely for their endings, as they refer to different places) and to ask whether *Labnānu*=לְבָנוֹן does not mean the "two white (hills)," either from its twin peaks called *Taumât Nihah* or its two main ridges divided by the R. Zaharāni, and whether חֲרָמוֹן does not refer to "two forbidden (hills)," since "the north end is much higher than the south and the centre is lower than either; the old Sheikh therefore seems to have at least two heads," as seen from the neighbourhood of Tyre (Thomson *Land and Book*, 177); the poetical plur. חֲרָמוֹנִים is of course dated from a time when the meaning of the ending has long sunk into oblivion. Another such name may be שְׁמֵרוֹן 'two watchers,' namely Ebal and Gerizin. All the old place-names in ך and ן then require and may repay investigation.

(2) PHOENICIAN

Cooke *North-Semitic Inscriptions*, 4, 3-4. Eshmun'azar, warning robbers not to open his coffin, says מִי אֶת כָּל אָדָם "whoever thou art, O every man (=anyone) who wouldst take forth my coffin,

¹ Here the noun-ending is already fossilized, as it is in the gen. case.

do not, do not open (it) over me". The difficulty has been caused by failing to see that כל אדם is in the vocative case. The Hebr. הוּי כָּל צִמָּא לָכוּ לַמִּים (Is. lv, 1) is a sentence of similar form.

Ibid. 5, 5

Eshmun'azar again warns robbers not to ransack his tomb for jewels כִּי אֵי שֶׁם בֶּן מִנֶּם "for they have not put," or, in other words, "there have not been put (any) jewels in me." Clearly שֶׁם cannot mean "there," as usually translated, since "here" would be required by the sense if it were an adverb; it is the verb שָׁם, written defectively for שָׁמוּ, used as in the Aram. וְלִשְׁמוּ עֲמִי מֵאֵן כֶּסֶף וְנָחֵשׁ "and they have not put (לא שָׁמוּ) in me (any) vessel of silver or bronze" (*ibid.* 65, 6-7).

Ibid. 6, 3-5.

The clause that בִּדְעִשְׁתָּרְתָּ . . . אֵית שָׂרֵן אֶרְלִיז לֵאֲלִי has hitherto found no satisfactory interpretation owing to the uncertainty regarding the meaning and sense of שָׂרֵן אֶרְלִיז. I suggest reading שָׂרֵן אֶרְלִיז and translating the passage "Bod'ashtart . . . built this emblem of cedar-wood to his god 'Ashtart'," if the Acc. *šurinnu* or *šurinu* "divine emblem" may be prayed in aid to explain the Phoen. שָׂרֵן. Originally the *šurinnu* was a standard of metal (Harper, *A.B.L.*, X, 997 O. 10-R.7, XII, 1194, R. 10-15) bearing a symbolic emblem and dedicated to various gods, amongst them Ashur, in whose temple was a *tarbaš šurinné* "court of emblems" (Weidner *Ao.B.* I 106¹), as well as to goddesses (Dossin in *R.A.* xxxv, 54). The use here of בָּן (=בְּנָה) "built" rather than of פָּעַל "made" suggests that the Phoen. פָּעַל is or includes something more elaborate than a simple standard. It may be added that several letters seem to be missing at the beginning of the last line (not indicated by Cooke), unless the stone was damaged before the cutting of the inscription.

Ibid. 41, 4-7.

In מִלְכָּתֵן אֵשׁ לְנִצְבָּא the true reading for לְנִצְבָּא is certainly לְמִצְבָּא and the meaning is that "Melekyatar completed it (in regard to) what (was necessary) for setting it up;" for מִצְבָּא is nothing but Aramaizing infinitive form or an abstract noun with *m* prefixed.

(3) ARAMAIC

Cooke *North-Semitic Inscriptions*, 61, 23-24.

I now prefer to translate *אל יתן לה לאכל ברגו ושנה* "may be (*sc.* Hadad) not let him eat in his rage, and sleep may he withhold from him in the night and trouble may he give him" rather than "... and let sleep be withheld from him in the night and may terror be given to him" (*s. Anal. Orient.* XII, 47), taking both *למנע* and *נתן* in an active sense; for there is no evidence that *למנע* can stand for *לתמנע* with the loss of *ת* after *ל* in the Aramaic as in the Old-Babylonian verb.

Ibid. 63, 17-18:

Surely *הו בית כלמו להם* means merely "it was a house of everything unto them," namely both a winter-house (*בית שתוא*) and a summer-house (*בית כיצא*), as explained in the next lines; for the Aram. *כלמו* is nothing but the Acc. *kalamu/a/i* "all." The Ass. *ekallu pāqidat kalamu* of Esarhaddon (Winckler in Schrader's *K.B.* ii, 140-1, vi, 26) is only superficially parallel, but shows the origin of the Aram. *כלמו* in this passage.

Ibid. 64, 3-4, 12.

The meaning of *צלמא וארצתא* can be nothing but "effigy and tomb;" for the Aram *ארצתא* is readily explicable as the same word as the Acc. *iršitu* "earth," which has also the sense of "grave," being glossed *bît mûti* "house of death" and *naqbaru* "grave" (*cp.* Hebr. *קבר* "grave") in one native syllabary (Rawlinson *C.I.W.A.*, v, 30, g-h 35).

Ibid. 69, 18-19.

In 2, 3 *ומן שימתא זי מלכא דקלן* it seems that the Aram. *שימתא* is the Acc. *šimtu* "purchased property" from which *zittu* "inherited" portion" is often distinguished in Assyrian documents (Ebeling *Urkunden des Archivs von Assur* 6, 5-6; 61, 5-6; 86, 9-10); for Oriental kings occasionally acquired property like their subjects by lawful purchase (*e.g.*, 2 Sam. xxiv, 21). The clause then may be translated "and from the king's purchased estate(s) 5 palm-trees." Whether the word at Têma still preserved its original meaning of "purchased property" or had come to mean any "property" or "estate(s)" cannot now be said.

Koldewey (*Das wiedererstehende Babylon*,⁴ p. 80, fig. 52, p. 81, fig. 53) publishes two bricks from a building at Babylon bearing Aramaic words, which he fails to read quite correctly. The first (fig. 52) reads פִּלְגָא לִבְלָחִי “the canal Lîbil-ḥegal,” the name of a canal at Babylon meaning “may it (*sc.* the canal) bring plenty;” the second reads זִבְנָא, the name of a Babylonian official described as *Za-bi-na-*’ (*awēl*)*qi-i-pi ša* ... (the title being unfortunately imperfectly preserved) in a text of Nebuchadrezzar II (Unger, *Babylon*, 286, v, 17). This name occurs on another brick of the same date from Babylon (*C.I.S. II*, i, 55).

Legrain (*Culture*, p. 368, no. 1,095) publishes another brick of the same period bearing a name which he reads נְבוֹנָאִר; it is נְבוֹנָאִד *Nabû-na'id*, probably not the king, but a contractor or mason of that name.

Aimé-Giron (in *Bull. du Serv. des Antiq. de l’Eg.*, XXVI, 23–27 I, B) publishes an interesting ostrakon from Elephantine referring to some barley (שַׁעֲרִיָּא) deposited in a certain person’s house; the last line, however, is not אֵל יִלְקַח but אֵל יִלְקַחוּ “let them not take (it) away,” *i.e.*, let it not be removed from the place where it has been put.

It is hoped that these few notes may advance the understanding of several inscriptions which have been known for a longer or a shorter time and so possibly be of assistance in interpreting others yet unſound.

(III) TWO GODS (*HW* AND *MWT*) IN PROPER NAMES

1. The origin of יִרְחֹו/יִרְחִו, the name of a famous city in Palestine, has hitherto defied explanation, although Lewy (in *Rev. Hist. Rel.* CX, 61) has rightly seen that it is compounded of a verb and a divine name. Thus it is clearly of the same type as יְרוּאֵל “*El* has founded” and יְרוּשָׁלַם (*sic*) “*Salim* has founded;” incidentally this god is attested in the similarly formed Phoen. יְבַנְשָׁלַם “*Salim* has built,” a personal name analogous to the Hebr. יְבַנְאֵל (place-name) and יְבַנְיָה (personal name). The verbal יִרַח is the old form of the perfect tense of יָרָה “threw; founded” from the $\sqrt{wrw}$ “threw,” so that *uru-* in (*ál*)*u-ru-sa-lim* (as the name is written in the tablets from Tell-al-Amarna) is not the Sum. *URU*

"city" (Langdon), but a phonetic spelling of this doubly-weak form. Similarly יריחו will mean "founded of (=by) *Hδ* "; for ירי, if it is not a mere variation of ירי- (cp. ירואל/יריאל), is easily explained as an Aramaizing passive participle with the noun describing the agent in the genitive case (cp. ידירה "loved of *Yah*").

What then is this *Hδ*? A comparison of such names as אחרם king of Gebal with חירם or חורם king of Tyre suggests that חי and חו are identical with אח, while variant forms like *Annobal* and *Hannibal* show that the vowel of the construct ending may vary at will; presumably then that of the nominative case-ending too may have done so (s. Schröder *Phön. Spr.*, 177-9). Further, it is now recognized on all sides that אח, like אב and עס, are divine titles, if not actually the names of deities, in compound names. Who *Hδ* may have been and whether the name is a designation of Tammuz (Langdon *Sem. Myth.*, 7-9) is not a question for the present discussion, but the occurrence of his name in that of a prince of Naphtali called אחירע¹ (Numb. i, 15 +) and of a Benjamite called אחירם (Numb. xxvi, 38) suggests that his cult may once have been widespread in Palestine (even though the origin of such names may not have been known in the time of the Priestly writer).

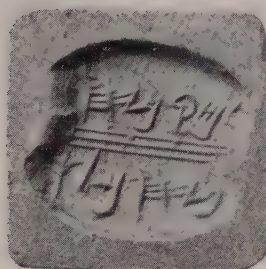
If then this explanation of the name of יריחו is accepted, the name of its second founder חיאל gains significance when his Bethelite origin (1 Kings xvi, 34) and the Greek transliteration of his name as Αχ(ε)ηλ (LXX) are taken into account. Clearly it is an abbreviation, not of יחיאל "may 'El live!" (for which the LXX have ιηλ and the like), but of אחיאל meaning "'Ahi (is) 'El," and thus equates the god of the ancestral home (Bethel) with that of the adopted home (Jericho) of Hiel's family.

2. This same verb may be detected also in ירמות, which must be corrected to ירימות after the Bab.-Can. *Yarimuta* and LXX's ιερ(ε)μουθ, so that it may mean "founded of (=by) *Mδt*" (cp. Lewy in *Rev. Hist. Rel.*, CX, 61); this is the Ugarito-Phoenician god *Mt* (cp. Gk.-Phoen. Μωτ), now well known from the texts from Râs-esh-shamrah. This god may

¹ Preferably אַחִירַע (cp. LXX's Αχαιρε) meaning "'Ahi (is) a friend'".

be recognized also in the Hebr. הַצְרָמוֹת, which ought rather to be vocalized תַּצְרָמוֹת after the LXX's Ἀζαρμωθ and the Arab حَضْرَمَوْت, which will accordingly mean "the settlement of *Môt*." Such an explanation of "Hadramot" may be taken to support the view, now called into question, of the southern origin of the Ugarito-Phoenician race, suggesting that as they journeyed northwards one group deserted the main body and settled on the rich Arabian coastland in preference to continuing their travels to an unknown northern destination. This same name occurs also, though in a modified form, in the Lycian *Adramyttium* and the African *Hadrumetum*, both Phoenician colonies.

Finally, the god *Môt* may now be discovered in two Hebrew personal names, namely אַחִימֹת meaning "'*Ahî* is *Môt*" and עֲזִימֹת or rather עֲזִימֹת (cp. LXX's Ἀζμωθ) meaning "*Môt* is fierce" (Bauer in *Z.A.W.* LI 95); the E.-Can. *Muti-ahî* may conceivably contain the same elements as the Hebr. אַחִימֹת (s. Bauer *Ostkanaanäer*, 71).



SEAL OF MIKNEIAH

ZION AND JERUSALEM A LINGUISTIC AND HISTORICAL STUDY¹

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To embark on a fresh discussion of the much-vexed question concerning the meaning of "Zion" and "Jerusalem," both as words and in their historical relations demands a preliminary justification. Careful investigation has convinced the present writer, that the meaning of these two words, and likewise some of other expressions which depend on them, is far from being elucidated, and still less their earliest traceable history. Much more than the etymological value of these words is at stake; to have their meaning defined in an appropriate way will uncover a chapter of ancient history which would otherwise pass unnoticed.

The investigation of ancient place-names has its own charm; the more so in this case, when we are dealing with the remotest antiquity and with names whose sanctity is unparalleled in human history. A very wise utterance of the late J. Rendel Harris² may be reproduced here, as it will serve not only as a justification for my having undertaken this study, but will also illustrate its final purpose and intention: "I premise that the study of place-names, properly handled, is one of the surest ways of writing early history; before writing was invented, the planet on which we live had a Gazetteer; and some of the earliest names that can be assigned to that imagined document will be found persisting, often with very small change, in the latest index that can be made to a collection of maps."

¹ The MS. of this paper has been thoroughly revised, at the author's request, by Professor Edw. Robertson, Manchester.

² "Further Traces of Hittite Migration" (*Bulletin of the John Ryland Library, Manchester*, Vol II, January, 1927, p. 59).

I. ZION

Spelled in Hebrew צִיּוֹן, the seemingly kindred word צִיָּה *zijāh* at once suggests itself, a word which (e.g., in Jer. ii, 6) means a land of drought, a barren place, and the same word in the form *zājōn* seems even more akin with "Zion." Indeed, commentators, grammarians, and writers of dictionaries have nothing else to offer,¹ and in addition they stress the fact that in the Syriac the word is spelled *zahjōn* or *zehājōn*, inserting the *h* sound, by which the notion of barrenness seems even better expressed.² Another tentatively given explanation would be from Arabic *šun*,³ a word denoting shield or buckler and target, assigning to Zion the function of a fortress for the town and land behind her. But nowhere in the Bible is Zion seen in this capacity, and nowhere do we find any hint of this meaning of the word, so that this second explanation can quickly be dispensed with.

As to the first suggestion, we can dispose of it at the outset, as it is highly improbable that the founder of a town or its inhabitants would describe their living place as a land of drought, desert or desolation. Just the contrary is witnessed all over the world, and on the soil of Palestine we find town-names like Japho (Joppe, Jaffa), Jotb'ha (from יָטַב טוֹב), Jotbhata, Mepha'at (from *japha'* to shine, to be luminous), all of them declaring the town concerned as beautiful and nice. Those who regard the soil of Jerusalem as very aptly described by the word *zijāh*, do not realize that the present state of the spot is no indication at all of its former nature, on the contrary, the land was formerly very fertile, it was "a good land," as the Bible says, ruined only by the evil deeds of man. Certainly it did not lack joyous vegetation too. Such

¹ See the *Dictionary of Gesenius* in all its German and English editions (German: 15th ed. and ss. English: edited by Driver and Briggs, Oxford, 1906; the so called *Oxford Gesenius*, 2nd ed., by Edward Robinson, 1929), in all of them plenty of literature having been quoted. In Syriac exists also the form צִיָּהּ; see Supplement to P. Smith's *Thes. Syr.*, p. 283.

² It is noted by Gesenius that Lagarde (*Bildung der Nomina*), p. 84, cp. p. 198, regards Syriac *zehajon* as the older form.

³ Given in *Veteris Testamenti Concordantiae* (from now on quoted as *Concordance*), by Solomon Mandelkern, 2nd ed., 1937. I could not look for any etymology in Ben Jehuda's *Thesaurus*, as the volume concerned, edited only in recent times, was not available to me.

a dismally desolate district as is now the surrounding of the Salt Sea and the whole Jordan valley, is described in the Bible (Gen. xiii, 10) "that it was well watered every where, before the Lord destroyed Sodom and Gomorrah, like the garden of the Lord, like the land of Egypt, as thou goest unto Zoar." Mention is made, in Jerusalem, of the King's garden and of the garden of Uzza, and whatever historical value we may attribute to the Book of Ecclesiastes, one cannot disregard the witness of this author who puts in the mouth of a king of Jerusalem the words (ii, 4.5): "I planted me vineyards, I made me gardens and parks, and I planted trees in them of all kinds of fruit." It would be, indeed, very strange, if the kings of Juda, some of whom were very mighty and delighted in luxury, should have been entirely deprived of the pleasure of parks and orchards. Recollection of this fact survived in certain sayings of the Rabbis of the Mishnah, the so-called Tannaim (first to second century), who, for some *halakhic* reasons, disliked to see in Jerusalem plantations of any kind, even gardens and parks, but admit, however, that an exception had taken place, since there existed, "from the times of the early prophets"—that is: the prophets of the period of the Kings—a garden of roses.¹

On that account, I think, we can disregard the view that the word Zion means a barren place and can offer for it a more plausible explanation. In my view the word צִיּוֹן has been formed from the root צָבִי and should be pronounced צִבְיוֹן *Zibhjon*, a word which denotes desire, delight, pleasure. It is true that the word צִבְיוֹן does not occur in the Hebrew of the Bible, but it does exist in several phrases of the Neo-Hebrew of the Talmud and Midrash; it does exist as צִבְיוֹנָא in the Aramaic of the Targum and also in the corresponding Syriac. Wherever it occurs in the Talmud and Midrash it has reference to some Biblical word, and we should not overlook the significance of this fact. To quote some instances: a saying of Rabbi Joshua ben Levi (Talmud Babli, Hullin 60 a): "All the protogenic creatures have been created in their full stature, with their agreement, and in their full

¹ *Ginnat v'radim*, Barajtha b. Baba Qamma, fol. 82b, *Toseftha Negaim* V1, 2; 'Aboth R. N. Version I c. 35, Vers. II c. 39; see my *Qadmonijoth ha-Talmud* I, 104, that the Mount Zion is meant.

beauty.”¹ The word צְבֹאִים, Gen. ii, 1, is being commented on, taking it in the sense of beauty, of desire (for being created), and accomplishment. And again (from Talmud *Ketubbōth* III a, referring to וְנִתְּתִי צְבִי כְּאֶרֶץ הַיִּים, Ez. xxvi, 20): “The land which enjoys my pleasure—its dead shall be revived.” And (from the Midrash, *Exodus Rabbah*, ch. 25, beginning, alluding to the expression God of Zebaoth): “He fulfils his desire on his creatures; according to others: on his angels.” The verb צָבָה or צָבִי to find pleasure in, to choose (like Hebrew בָּחַן or בָּחַר), to desire, is very common in Aramaic and Syriac. In the light of this statement we are allowed to surmise, that *Zibhjah*, name of the mother of king Joash, is really taken from this notion: the nice one, the pretty one, a flattering name, customary in the case of girls and women.²

In a linguistic matter it is always an advantage to be able to support the newly assumed formation by an analogous instance. In our case this analogy is provided, so it seems, by the occurrence, in close proximity, of the town-name צְבִים, which is only one of the forms in which this name has been transmitted; variant readings are צְבִים, צְבִים, צְבִים (see dictionaries), a fact which leaves some doubts about the correctness of the usually accepted way of transliteration (Septuagint Σεβωειμ, -ωειμ, English Bibles Zeboim or -iim). As to the grammatical form, the analogy of the plural *zebhaïm* from the singular *z'zbi* (=gazelle) has been adduced,³ but

¹ The sentence has been translated by M. Jastrow, *A Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature* (quoted from thereon as Jastrow), p. 1258, as follows: “All the works (animals) of creation were created in their full-grown stature, with their consent, with their pleasure (in their mission)”. In the last part Jastrow is wrong; he himself quotes Rashi who explains it differently: “according to the shape of their own choice.” Far better J. Levy, *Chaldäisches Wörterbuch über die Targumim*, etc., II, 312: “in their full beauty, in their perfectness.” For passages from the Targum see J. Levy and Jastrow, l.c.

² I am doubtful regarding צְבִי 1 Chr. 8, 9.

³ In Siegfried-Stade, *Hebr. Wörterbuch zum Alt. Test.*, Leipzig, 1893, the following reference has been given: Böhme, Neh. 1-6, p. 3, after analogy of צְבִים instead of צְבִים, צְבִים, צְבִים, the plural of צְבִי. In the German Gesenius, 15th ed., s.v. צְבִים, is given: for the orthography see *ad פְּתִי*. The analogy of שְׂפָאִים שְׂפָאִים could be adduced as well (this *Qri Kethib* does not figure in Gesenius' Grammar and Dictionary, but see Alex. Sperber, *Problems of the Masora*, in *HUCA=Hebrew Union College Annual*, Vol. XVII, Cincinnati, 1942-3, p. 343).

this provides nothing for the meaning of the word,¹ as indeed nothing seems suitable for finding a meaning. Now we can assume with reasonable safety, that a spelling like צבִיִּים, transformed into צבִיִּים, leads to the pronunciation *Zibhjōm*, which instantly reminds us of our *Zibhjōn*—Zion, and the meaning is the same. The fact that the one ends in *-m* and the other in *-n*, does not matter, as we have many proper names which vary in this way (cp. Gershōm and *-n*,² and the town-name *Qiryathaim* beside *-ain*, the latter in the Mesha' inscription, see Gesenius-Kautzsch-Cowley, *Hebrew Grammar*, Oxf. 1910, § 88 c). That Hebrew *mathaim* (=200) becomes *-n* in Aramaic, can be adduced in our case the more appropriately, as we have probably to deal with a linguistic feature which is pre-Israelitic and in any way a dialectic interchange.

Let us now return to our "Zion." To begin with, it can be assumed that it is a pre-Israelitic name, given by some Canaanitish people, as is the case with so many of place-names in Palestine. Likewise it can be surmised that the name with which we are concerned has been formed in the same fashion as other town-names in this country; what then it is that we can observe in so many of them? They are very often formed of two firm or closed syllables, as are—to name only a few instances and the most conspicuous of them—Gibh'ōn, Hebrōn, Hesbōn, 'Ephrōn,³ Qidrōn, 'Eqrōn, Yarqōn, Hasmōn (presumably the place of origin of the renowned Hasmonean family), Hazrōn, 'Ezyōn [Gebher]; to that one may add also that in such names as Hermōn, mountain, and Ba'l Hermōn, a town-name, Lebanōn (from the notion *labhan*=white, cp. Libhnah as town-name, therefore originally perhaps Libhnōn), cp. also Lebanōn and Sirjōn

¹ Possibly gazelles in the plural? Possible only if one could supplement it with עִיר city of gazelles.

² Purposely I have taken this example, as the word is formed like *Zibhjōm -n*. Other examples would be 'Onām (Gen. xxxvi, 23) against 'Onān (ib. xxxviii, 4); *Hemam* or *Homam* against *Heman* (Septuagint Αἰμων, L. Αἰμαν).

³ 'Ephrōn serves as personal name and likewise town-name, as do many of the proper names occurring in ancient literatures. This is quite natural, as the founder in the name of his foundation; cp. with the Greeks and Romans Alexandria, Antioch, Apamea, Berenice, Rome, Pompei, and the same in the Arabic world.

together Ps. xxix, 6, Midyan=Midyōn,¹ let alone a lot of personal names (Gid'ōn, Sim'ōn, Simsōn, Salmōn, etc.), which are fashioned in the same form. Very few names are extant, or rather have been transmitted to us, which, in their first syllable, show an open sound (Sidōn, Gihōn, Dibhōn, Sihōn), and we don't know what they were like in a possible former stage of the language. Our Ziyōn, with *dagesh* in the *jod*, certainly ranks with the former group, and is in close line f.i. with 'Ezyōn (already mentioned) or with Qishyōn, but we are at a loss to know what the *dagesh* stands for. In my view the sound of *bh* is missing, read Zibhyōn, and in that you have the complete explanation both of form and meaning.

Our next step in our investigation must be an attempt to explain, why the *bh* sound in our assumed form צביון has been rejected and disappeared, in order to give place to the new form ציין? The *bh* is a weak sound, like the digamma in Greek, and its dropping away need not necessarily puzzle us, as a phonetic principle merely took the place of the historical orthography. Proper names, by their frequent use, are especially exposed to this kind of alteration or evolution. Taking our examples from the Bible itself, we note the amazing fact, that the name Adōnirām (1 Kings iv, 6; v, 28) occurs also in the form Adōrām or Hadōrām, and a whole syllable therein is missing, although in this case an intentional alteration cannot be excluded. We will come nearer to our task by the following arguments: Bath-Sebha' takes also the form Bath-Shua', *bh* being reduced to *v*.² שבל, the train (German: die Schleppe), Isaiah xlvii, 2, also in Arabic *sabalat*, is regarded as synonymous with שורים; now Shōbal is also the name of a son of Seir and of a Kalebite family (see Wellhausen, *De Gentibus et Familiis Judaeis*, etc., Göttingen, 1870, p. 39). Wellhausen³ further on suggests, that ארור is

¹ The ending is slightly different, which denotes only a dialectic feature; cp. Dishān and -ōn and similar ones in the great list of Horite clans: Gen. ch. xxxvi, 1 Chr. i, 38 ss. (cp. also שריון and שרין; שלטון and שלמן) Gesenius-Kautzsch-Cowley, *Hebrew Grammar*, § 9 q (p. 48).

² Septuagint put for both "Bersabee," but this is a scribal error, see Wellhausen, *Comm. on Samuel*, p. 181.

³ In *Gött. Nachrichten*, 1893, p. 480, quoted by C. Buchanan Gray, *Studies in Hebrew Proper Names*, London, 1896, p. 26, n. 4. I have made many observations of this kind in my article טבל (*Schwarz-Festschrift*, Vienna, 1917, p. 269-292).

an abbreviation of אֲבִירוֹד, and this is, in Gray's scheme, a name of Period I. אֲבִיר in Ezra x, 34 is, according to the alternative explanation of the Oxford Lexicon, אֲבִירָא (Gray, p. 28, n. 2). חוּר is pronounced in Greek *Auranitis*, which gave birth to modern *Hauran*; *Gaulan* in Bashan, etymologically, is probably nothing else than *Gebal*=Gebalene. The gradual evolution of this phonetic phenomenon can still be followed in the forms of one and the same word: עֲלִבּוֹן (in 'Abhi-'*Albhōn*, see Concordance), עֲלִין, עֲלִין, עֲלִיה. That this observation has been made on an Edomitic name, so far from being inadequate, is calculated to enhance the more the value of our deduction, since "Zion" too belongs to the language of a foreign tribe, possibly to the same Edomites who created the word "Zebhōim"=Zibhyōm, as has been explained above. To the same region belongs also the town of Ya'azer, which in Targum Jonathan is rendered by מְכוּר (certainly from Old Hebrew מִכְבֵּר, a grating of network), which in Greek became *Machairous*, and the same change of *bh* into *u* is shown also in a variant of the Mishnah text.¹

The clue to all these considerations appears in the fact that prophets and poets still seem to allude to the character of Zion as being the "perfection of beauty" (Ps. 1, 2), the prophets even using the word צְבִי splendour to denote this beauty. Isaiah (xxviii, 2), rebuking "the fading flower" of the glorious beauty of Ephraim=Samaria, says (verse 5) that, on the contrary, to the residue of His people, meaning Jerusalem, the Lord of hosts shall be "a crown of glory (צְבִי) and a diadem of beauty," a word which is more than a mere rhetoric phrase. Not only the whole land is described as "z'bhi," as is done in Jer. iii, 19, or in Ez. xx, 6, 15, or pure and simple "z'bhi," as in Daniel viii, 9, but also (ib. xi, 45) especially Jerusalem herself, and in her territory the "beauteous" (צְבִי) holy mountain, which apparently denotes Zion, the place of the Sanctuary.

2. JERUSALEM

The puzzle about the true meaning of the Hebrew word יְרוּשָׁלַיִם, *Y'rushalaim* is even greater and more annoying than that about "Zion." Clearly it is composed of two

¹ See Reland, *Pal.*, p. 883; Schürer, *Geschichte*, etc., I, 638, n. 335; A. Brody, *Der Mishnah-Traktat Tamid*, Uppsala, 1936, ad III, 8.

elements, of which the second one : שֶׁלֶם *shalem* is an easily recognizable Semitic word. But what about the first element ? In addition, the spelling of this first element has been made highly uncertain by the diversity of form in which it has been transmitted in the sister Semitic languages : *Urusalim* in the Tel Amarna letters, *Ursalimmu* in the Sanherib inscriptions, *Urshlem* with Nabateans and Syrians (cp. יְרוּשָׁלַם *Y-rushlem* in the Aramaic Papyri from Elephantine and in the Judeo-Aramaic in the Bible), whereas Arabic *'Urishalamu* may be already taken from Greek-Latin *Hierosolyma*, all these forms, and more, being duly listed in the German and English editions of Gesenius' widely known Dictionary. But it was Gesenius, who as far back as the year 1835 in his *Thesaurus* showed the right explanation, as we shall see further below, and it is a pity, that in spite of this some modern scholars of high repute have thought it right to neglect or even emphatically to reject this one sure result attained by Gesenius.

Three of this disbelieving class of scholars may be cited by name. G. Beer, who wrote the article "Jerusalem" in the highly esteemed *Real-Encyklopaedie des klassischen Altertums* of Pauly-Wissowa (Vol. IX, part 1), says, the name "Jerusalem" can scarcely be Semitic; besides, in view of "Zion" he says even more explicitly, that it is doubtful whether it is a Hebrew or a Semitic word at all. The late Professor Samuel Klein in Jerusalem, known for generations as the fortunate pioneer in the historical geography of Palestine, in the course of his article "Jerusalem" in the German *Encyklopaedia Judaica*, says, after having mentioned what Gesenius has stated in his seventeenth edition, that the word "Jerusalem" may have been taken from the language of the Hittites. This author may have had in mind, that, as the south of the country was inhabited by the Hittites, it would be their language from which the name "Jerusalem" originated; but why not from that of the Jebusites, who were the real inhabitants of the city of Jerusalem? The language of each is equally unknown to us. L. Kohler, in an inaugural address to the University of Zurich,¹ said: "Neither *Jordan*, nor *Jericho*, nor presumably *Jerusalem* are Hebraic" ... mentioning just these three very common words whose

¹ *Alttestamentliche Wortforschung, Festrede, gehalten ... am 29. April, 1930, Zürich, 1930, p. 15.*

initial syllables sound alike and which he could not derive from the Hebrew, but avoiding the making of any suggestion concerning it.

The view of Gesenius, alluded to above, which has since been endorsed in the various German and English editions of his Dictionary¹ and with which I agree in the main,² may be rendered as follows: The first element יר in "Jerusalem" derives from verb ירה *yarah*: to cast, to lay the foundation (of some building or structure). This verb occurs, patently, only twice in the Hebrew of the Old Testament, in Job xxxviii, 6 (beginning properly in verse 4 with a poetical description of the creation): "Where wast thou when I laid the foundations³ of the earth . . . whereupon were the foundations thereof fastened? or who laid (*yarah*) the corner-stone thereof" . . . and in prose, but still in an elevated style, in Gen. xxxi, 51: "Behold this heap, and behold the pillar, which I have set up (*yarithi*) betwixt me and the," an account in which it was previously said (verse 45): "And Jacob took a stone, and set it up for a pillar," where the English "set up" renders the Hebrew verb *ramah*, from which we may deduce that the verbs ירה and רמה are sometimes synonymous in Hebrew. Cp. the alternative use of ירה and רמה in the triumphal song Ex. xv, 1. 4. But the existence of the verb *yarah* in the sense "to set, to cast, to found," does not remain restricted to these few passages; Gesenius, Prätorius, and others rightly point out the similarity of the

¹ I have before me the 15th ed. (1910) in German and the three which exist in English: Oxford, 1906, 1929 and 1939. The relevant literature, as given in the German ed., is: in square brackets I am adding the Christian names of the authors, in order that their identity may be preserved: [Julius] Grill, in *ZAW* (=Zeitschrift für alttestam. Wissenschaft, 1884) IV, 134 ss. [Franz] Prätorius, in *ZDMG* (=Zeitschrift der Deutsch-Morgenländ.-Gesellschaft), LVII, 782. It is to be regretted that the English editors failed to register this paper of Prätorius, which, however, is very important. But they added: Zinjrli ירי *set, found*, from DHM (=David Heinrich Müller, a former colleague of mine in Vienna), *Sendsch.* 57, and [M.] Jastrow [JR.] in *JBL* (=Journal Bibl. Lit.), XI, 1892, 105: *uru*=city. Again, in the Oxford ed., 1939, edited by Fr. Brown, S. R. Driver, Charles A. Briggs, the Zinjrli is missing.

² With modifications and amplifications, however, as shown further.

³ Verb יסד, recurring in many passages quoted further below. The use of this verb is very extensive in Hebrew, f.i., it is used also for the coming into existence of countries and kingdoms.

first element in proper names like Jeru-salem, Jeru-el (or Jeri-el), Jerijjah, a list which can easily be augmented, e.g., by the following : Jirm'jahu ("whom Jah does cast," not as Gesenius suggests and as given also in Hastings' *Dictionary of the Bible* : "whom Jah appoints," but "whom Jah founds, creates;"¹ Jerubba'1 (which should be written ירובעל Jerubaal, "Baal" taken for Jah, Jahve, "whom J. founds," so Wellhausen, Budde, Moore, and given in Hastings);² J'rusha, mother of king Jotham of Juda, a name, ending in 2 Kings xv, 32, with *aliph*, in 2 Chron. xxvii, 1 with *hē*, has, of course, nothing to do with the common notion "inheritance," but means "cast by *shemesh*=sun or by *shamaim*=heaven," cp. Baal above,³ and similarly also J'rimōth, J'remōth, Jarmuth, J'remai (for all these see *Lexicon*),⁴ and even Jericho⁵ "foundation of somebody who is called -cho" (abbreviation of nouns like Henoah, cp. Gen. iv, 17, or Hanun, or Honi=Nehunjon with the Rabbis, or even Nahor, cp. city of Nahor, Gen. xxiv, 10, and following the same idea—also Z'rubabhel,⁶ Septuagint Zorobabel, bab.

¹ In spite of Jer. i, 4, one cannot name a newly born son after his future mission, but one can be thankful for God's gift and express it in words. Cp. about Cain, Gen. iv, 1, and similar tales.

² Prätorius, l.c., is still at a loss of the meaning of "Jerubaal."

³ Prätorius, taking "Jerusalem" in full for the individual name of a person, supplements עיר : city of this person. In ירושא he sees the abridgement of that name ; in full it was ירושמש ? (the interrogation is his).

⁴ The meaning would be "foundation," "founder," or some similar idea. A further place name would be ידאלה (Jos xix, 15), Masorah יראלה (HUCA XVII, 377), the latter=אראל=foundation of Eloha.

⁵ Gesenius derives it from ירה : place of fragrance, Sayce from ירה moon, so also in the *Dictionary of Siegfried-Stade* : probably so named after the moon-cult—conjecture highly improbable.

⁶ The Masora puts a *dagesh* in the first *b*, probably aiming at making the proper meaning untraceable ; the Septuagint who write *Zorobabel*, distinctly make the first element an open syllable. This I take for זרה "begotten." זרה is here synonymous with ירה and רמה which we have found in all these names. A distant echo of all these phrases is to be found in Rabbinic ירה in a saying which in Jastrow, p. 596, has been rendered as follows : a spermatoc emission which does not permeate (shoot forth) like an arrow, cannot fructify (from b. Hagigah 15 a, cp. Yebāmōth 65 a).

It is well known that personal names, composed with בעל, frequently occur in the Phoenician language ; for שמש see *A Grammar of the Phoenician Language*, by Zellig S. Harris (=American Oriental Series, Vol. 8), New Haven, 1936, p. 152.

Zêr-Bâbili, not as usually taken "seed of Babel," but "be-gotten in Babel."

In the word "Jericho" and so also in "J'remōth," etc., we have the singularity that the first element is capable of a double pronunciation: ירי and ירי; in this may be found a slight dialectic difference as to the syllable *jri*; nothing less and nothing more appears also in this *jri* set against *jru* in Jerusalem. In Zinjirli, we have seen, *jri* is to be found in the sense of Hebrew *jru*. This phenomenon should in no way disturb us. We have already listed Jeri-el and Jeru-el, the same occurs in Pni-el and Pnu-el, in Hiram and Hiram (for cuneiform and Septuagint and Josephus see Lexica), this latter, being a Canaanitish name, is an excellent example of what a dialectic variation is like, but in the Hebrew itself the variation does exist, and in Gen. iv, 18 we have "M'chija-el" immediately after "M'chija-el."

Nor should the slight difference between *Urusalim* in cuneiform and *Jeru-shalim* in Hebrew disturb us—it is only a dialectic variation. In the Hebrew itself the change between א and י can be observed in a series of cases (see Gesenius-Kautzsch-Cowley, *Hebrew Grammar*, § 47 b n, 1), to which I would add אובל assyr. *ubbalu* against Hebrew יובל.

Now we can assert with the greatest confidence that Hebrew ירי in *Jeru-shalim*, meaning "to cast, to found," as noun,¹ "a foundation," is the equivalent of אור in the same proper name in the old Semitic languages, including Nabatean, Aramaic, and Syriac. Gesenius and his successors did not draw this conclusion, but the present writer does. Neither did they draw attention to the fact, that we have אור *Ur-* ready at hand and outstanding in *Ur-Kasdim*,² which accordingly means "Town or Foundation of the Chaldeans" that is: Babylonians.

It has taken us a long time to reach a safe conclusion as to the meaning of *jru*, the first element in "Jerusalem." That we have to deal with two elements in this word, is

¹ After the many examples with ירי or ירי in town and personal names which we have adduced it is best to take *jru* or *jri* for a separate noun, and it is not necessary to supplement it as ירוש or ירות as Grill l.c. is inclined to do. Prätorius l.c. is even inclined to see in the whole word ירושלים the name of a person and to supply עיר, like דוד "city of David."

² I found this suggestion only in Mandelkern (*Concordance*), with the sign of interrogation added.

abundantly clear. This was seen also by the early Rabbis, whose view will be given later on. Now what does the second element mean: *shalem*, *shalim*, *Solyma*? All our much quoted authorities have suggested explanations, but their failure becomes abundantly evident. It was attractive to see in *shalem* something like *shalom*, and already Saadya (tenth century) had rendered its meaning by *dar al-salam*, making the happy conjecture that the first element denoted something like foundation, habitation. Proffered by Gesenius in his *Thesaurus* more than a century ago, it is still maintained in the Oxford Gesenius as "foundation of peace," in the manner, as it were, of the Aggadah of the early Rabbis. Grill appears sceptical of the truth of this explanation; he, on his part, takes *shalem* in every possible sense: God Jahve himself, therefore "foundation of *Shalem*=God of peace" (this has been taken over into the Oxford Gesenius); but, uncertain of this meaning too, he wants to see in *shalem* a human founder, and in view of this he quotes Ewald as saying: The name Jerusalem does not originate from Israel, it can be *uralt* and was created by the *Ureinwohner* (a very sound idea which will be used later on by myself), only to turn to a third possibility, namely, that by *shalem* David is meant, the heart of whom was "*integer*" with his God. M. Jastrow, JR. says (quoted in the Oxford Gesenius): *uru*=city, *salim*, n.pr. of a divinity. As to Prätorius, I have quoted him already as saying, that "Jerusalem" as a whole denotes the name of a person, and the name is to be supplemented by עיר city of this Jerusalem—a very queer notion.

Making use of the best of the suggestions of all my predecessors in this inquiry, I also maintain that *shalem* is a proper name, not of a divinity, but of a human founder, a king of hoary antiquity, whose time and deeds are lost to us, as no records have survived. He can be styled a mythical king like the *heros eponymos* of many of the Greek cities of old, but mythical only to us who have lost all trace of him. He could, however, be a dreaded and revered reality to those who were nearer to his time and lived on the very soil which once had been sanctified by his presence and activity. I cannot identify him with any personality of sacred or profane history;¹ I am forced to deduce his whole existence from the fact that

¹ Not even with Shalman (Hosea x, 14), of whom some think.

"Jerusalem," in my view, means the foundation of a king called Shalem. This alone is logical, for this alone are there many examples in the Holy Scriptures: the founder imposes his name on his foundation. It is like Ur-kasdim: the foundation (the city) of the Chaldeans. In some respects one may compare also Nō-Amōn: the city or house of Amōn, the Egyptian God.

A curious Midrashic passage, one of the oldest, as it is contained in the old collection *Genesis Rabbah* (56, 10)¹ and is, furthermore, transmitted anonymously, which is always a token of high antiquity, solves for us seemingly the mystery of this mythical king and his whereabouts. It should, however, be said that, according to the *Aggada*, Shem, the son of Noah, is identical with Malki-Zedek, "king of Salem" (*Gen. xiv, 18*). In order to understand it right it seems best to bring the passage in connection with the following (taken from *The Legends of the Jews*, by Louis Ginzberg, I, 285): The place on which Abraham had erected the altar (of his offering of Isaac) was the same whereon Adam had brought the first sacrifice, and Cain and Abel had offered their gifts to God—the same whereon Noah raised an altar to God after he left the ark; and Abraham, who knew that it was the place appointed for the Temple, called it *Yireh*, for it would be the abiding place of the fear and service of God. But as Shem had given it the name Shalem, Place of Peace, and God would not give offence to either Abraham or Shem, He united the two names, and called the city by the name Jerusalem.

By that it becomes apparent that already the early Rabbis saw in "Jeru-salem" two elements which they distinguished quite clearly. A striking point, observed by the commentators of this Midrash, is that the "Gematria" (the numerical value) of the word *Yireh* (יִרְאֶה) is exactly the same as that of *jru* (יְרֻ), namely 216. The second element, *shalem*, has been clearly connected by them with Shem (שֵׁם differs from שָׁלֵם only by one letter); now to whom the name of the city is due, is he not also the founder or the ruler of this city? This was a common idea in ancient times; therefore, in the mind of the early Rabbis, Shem ben Noah was the founder or the ruler of Jerusalem, a fact perpetuated in this city's name.²

¹ Cp. also *Midrash Psalms*, 76; *Jalqut Genesis* c. 102.

² Damascus too (see *Hastings Dict.*, s.v.) is said to be founded by Uz, the

To this may be added an etymological remark of Lactantius (*Institutiones*, 4, 10),³ to the effect, that Jerusalem was called after Solomon; even if "Sh'lomoh" is not a mistake for "Shalem" = Shalom; Lactantius, "the most Greek of the early fathers,"⁴ who speaks casually of "our ancestors who were the leaders of the Hebrews," may be imbued with the aggadic stuff of his Jewish "ancestors" and wrote this statement in their spirit. At any rate, he too sees in *shalem* the name of the human founder of the city.

The tale in the Midrash (l.c.) does not end with that, it goes on to quote the saying of an early Rabbi (this time the name is given), who claims to know,⁵ that already in pre-Israelitic times, when the city was known by the name Shalem, he, who was formerly named Shem, had erected in it a "tent" in honour of the God of Israel, and worshipped in it, as it is written (*Psalms lxxvi*, 3) "in Shalem he got his tabernacle, and his dwelling-place in Zion."⁶ This would be again the deed of a legitimate founder or ruler.

grandson of Shem. A Moslem tradition makes Eliezer (see *Gen. xv*, 2) the founder of this city and Abraham for some years the king of it; so also Nicolaus of Damascus, quoted by Josephus (*Ant. I*, 7, 2).

³ Quoted by L. Ginzberg, l.c., note 253; he goes on to explain: "This remark is not based, as is general assumed, on the Greek ἱερὸν, but on the Hebrew *שלמה*, *ירושנתו*, i.e. 'the possession of Solomon.' In this derivation of the word "Jerusalem" G. perhaps follows Grill, a view which was discarded (above).

⁴ Quoted from James Parkes, *The Conflict of the Church and the Synagogue*, London, 1934, p. 97.

⁵ I have rendered the text slightly modified after the recognized commentator Matnōth Kehunna; see also the edition of Theodor-Albeck.

⁶ This rendering of the verse of the Psalm seems to me to correspond to the meaning intended by the early Rabbi. In the A.V. and also in *The Holy Scriptures* (Philadelphia, 1937), published by the American Rabbis, the word "also" is added ("In Salem also is set his tabernacle"); I don't know for what purpose this "also" has been added.—It is unnecessary to remark that *sukkah* is synonymous with 'ohel=tent; cp. 2 Sam. vii, 6 ("I have not dwelt in a house . . . but have walked in a tent and in a tabernacle" (*mishkan*)). We will have to refer further on to the notions tent, tabernacle, dwelling-place. The whole verse, Ps. lxxvi, 3, recurs in this study later. Instead of *shalem* the Septuagint has *Siloh*; on that score the whole reference of the verse to our subject, i.e., Jerusalem, would be rendered questionable. But Graetz in his commentary justly argues that in the Septuagint there is a slight scribal error: Shiloh=Shilon=Shilom, i.e., Shalem as second element in the word "Jerusalem."

All this Midrashic matter, however, should be regarded merely as a diversion in this study ; as a matter of fact, only the assumption that by Shalem an ancient, mythical king is meant, should be maintained. Is there no allusion at all to this, evidently great king in our historical records ? The present writer is inclined to find such an allusion in the fact that the conqueror of his city, King David, named his son, born from Bath-Sheba', Sh'lomoh, a name which is only slightly different from Shalem and was perhaps necessitated by the Hebrew idiom or even by the new Jahve religion. It is not, however, a religious, but a political idea which underlies it ; namely that the man who was destined to rule in Jerusalem, should assume the name which was customary in that capital and should even obliterate the memory and appreciation of a former great, but heathen, king. David himself could not change his name, nor could his already grown up sons, who were already partly associated with the policy of the new realm, but the appropriate name could be conferred on his newly-born, belated child. This child, too, was properly called Yedidyah by Nathan the prophet (2 Sam. xii, 25), but his father insisted on calling him Sh'lomoh—we know now his reason.

We cannot pretend that David invented this name for this purpose out of his own head, because kindred names from this root were certainly in vogue before his time, but nevertheless it is worth while to ponder over the fact, that from then on many individuals bore this type of name, and we take them as they come from the dictionary, regardless of whether their origin is pre-Davidic or not ; those few of them which seemingly belong to an earlier time, are at any rate recorded in post-Davidic sources : Shillem, Shallum, Sh'lo-moth (n.p.m., once in Qri Sh'lomith), Sh'lomi, Sh'lumi-el, Shelem-jah, Shelemjahu, Sh'lomith (n.p.m. and f.), M'shlemjahu, M'shullam, M'shillemoth (also-ith), M'shulle-meth—is this not astonishing ?¹

¹ My article had been written when I saw that Professor Norman W. Porteous (Edinburgh) in an article styled "Shalem-Shalom" deals with the same problem (Glasgow University Oriental Society, Volume X, 1943, pp. 1-7). He too starts from mythological assets, but in two points there is a remarkable affinity between him and me : he says (p. 3) "David may have had a

Among all these proper names from the same root the most famous, *Sh'lōmōh*, is the least perspicuous in form and meaning (for parallels and suggestions see Gesenius). This name is now spread all over the world as "Christian" and surname, and to say something on this head should not be regarded as a deviation from our main path. We reproduce here, with considerable abridgment, a paragraph from the fine study *Jewish Proper Names and Derivatives in the Koran*, by Joseph Horowitz (in HUCA II, 167 ss.). Daud's son "Sulaimān" is found mentioned in the Koran for the first time in the second Meccan period. Lagarde explained this nominal form as the diminutive of "Salmān;" a similar explanation was given by Brockelmann, but he points out at the same time that the dissimilation of *u* and *o* to *u* and *e* respectively which appears in the Arabic as well as in the Syrian ("Shelemōn") forms a contrast with the Hebrew "Shelōmōh." Lidzbarski regards the form "Sulaiman" as an original, genuine Arabic diminutive. . . . That the Arabic form, either directly or through the agency of the Jews, was taken over into the Syriac is regarded as improbable by Noeldeke, in opposition to Lidzbarski. On the contrary, he regards it as more probable that the Syrian "Shelēmōn" is to be explained as an adaptation to the form Σολομων, the second *o* being changed to an *ē* as we find likewise in the case of the name "Jeshu'a" which was adapted from the form "Joshu'a."

This latter remark presupposes that some changes in the name took place in the outside world through independent channels, in other words, beside and beyond the Bible. Indeed, this must be assumed in view of the Septuagint rendering Σαλαμ' (Σολομ' sometimes only in L.), which is far from being covered by the Hebrew. "Salom"—with full first vowel is nearer to the supposed *shalem* as original than the accepted Biblical spelling *sh'lōm*-, let alone the fact that no reasonable ground can be found for the strange *-mōh* ending of this noun. As to the Greek rendering, in both cases, an

family reason for giving two of his sons the names Absalom and Solomon" . . . and again (ib.): "The first part of the name, viz., Uru, may be the Sumerian word for 'city' or 'precinct' or be a West-Semitic word for 'foundation.' The latter seems to be implied by the Hebrew form of the name."

equalization of the first two vowels can be assumed, since this is usual with the Greek translators, but the Syriac and Arabic renderings are indeed strange and against all expectation. So also is the dual form given in the Masoretic punctuation to the second element of our word; again "Jeru-salem" is nearer to the original form than the "Jeru-shalaim" of the Hebrew. Very justly one of our authorities (Prätorius) calls this phenomenon a *Zerrung* (dislocation or distortion) of the regular vowels, and he cannot find any reason for it, as there is no idol's name to be distorted or vilified. But what about a political reason? The old king's name should not survive in its integrity! The new form is not taken for a Dual by the Grammarians (see Gesenius-Kautzsch-Cowley § 88c), it is "an expansion" (*ib.*), I would say an alteration, a deliberate one. "Jerusalem" itself probably took the place of the former "Jebus;" when David conquered the stronghold "Zion" he renamed it "City of David;" Qiryath Arba', the town of the four Giants, got the name Hebron; Qiryath "Ba'al" could not persist, it was renamed Q.Ye'arim; when the Danites conquered Laish, their first act was to choose for it the name Dan after "their father" Dan (Judges xviii, 29); a lot of "changed" names are reported in Num. xxxii, 38—this lies in the very nature of things. It seems, finally, that by "Yru-shalaim" is meant a Dual: foundation of *two* Salems, the old king Salem and the Israelitic S'lom[oh], who indeed had added splendid buildings to the city; since the old name refused to be uprooted.

Now we come, in closing, to one of the most striking points of this whole investigation. In the poetical parts of the Holy Scriptures, especially in the book of Isaiah, who as distinct from others was attached to the court of Jerusalem, we find further remarkable allusions to the sense of the word "Jerusalem" as an abode (of the divinity) by the very fact of its being founded or built. By an apparently senseless heaping up of synonyms Isaiah (xxviii, 16) alludes to the very name of Jerusalem: "Behold, I lay in Zion for a foundation (יִסָּד) a stone, a tried stone, a costly corner-stone of sure foundation" (מוֹסָד מוֹסָד),¹ intending thereby to say, that the earthly

¹ *musad musad* can be a genitive construction like *shir hashirim*: the best of the foundations, the peak of them.

foundation of this city shall be replaced by a heavenly construction with a resultant glorious perfection, reminding one of the other prophecy (2 Is. liv, 11, 12): "Behold, I will set thy stones in fair colours, and lay thy foundations with sapphires; and I will make thy pinnacles of rubies and thy gates of carbuncles, and all thy border of precious stones." The notion *jised* or *jisad* underlies all these phrases. "What then shall one answer to messengers of the nation? That the Lord has founded Zion, and in her shall the afflicted of His people take refuge" (Is. xiv, 32). "His foundation is in the holy mountains. The Lord loves the gates of Zion more than all dwellings of Jacob. . . . the most High Himself does establish her" (Ps. lxxxvii, 1, 5). Among all the authorities I have consulted I have not seen the slightest hint of this fact except with Grill (l.c.), but not to the effect that through this the true meaning of the verb יָסַד in "Jeru-salem" has been established. כִּינִן just quoted from Ps. lxxxvii, 5 serves exactly the same purpose, and so do the names מִכִּין, etc. (Ex. xv, 17; 1 King viii, 13; 2 Chron. vi, 2; the entire phrase is extant in Is. iv, 5: "over the whole establishment¹ of Mount Zion, and over her assemblies . . . for over all the glory shall be a canopy," *huppah* being the equivalent to *sukkah* and *'ohel* met with above). Cp. also Dan. viii, 11. The same is true for *m'on*, *m'onah* Ps. lxxvi, 3, Deut. xxxiii, 7 and even for *mishkan*.

What to me seems even more striking, is another poetical phrase of Isaiah (xxxi, 9), in which the word אֹר *'ur* occurs, usually interpreted as fire. This would be a very weak notion, indeed, in this mighty speech. It does not yield a true parallelism to furnace in the same verse and does not correspond to the practice followed in the whole Bible of putting the word אֵשׁ for the altar fire. In Is. אֹר in the sense of fire is hardly ever used, whereas אֵשׁ occurs many times (see Concordance), and once (in l, 11) אֹר appears supported by אֵשׁ, seemingly to affirm its intended meaning. The whole trend of mind implied in xxxi, 9 imperatively demands for אֹר the meaning to found which has been accepted by us in the word Jeru-salem. It should be rendered accordingly: "who has a

¹ "every dwelling place" in the A.V. is wrong, as it would denote only private habitation. "Habitation" in the Bible of the American Rabbis is a bit better, but not satisfactory.

foundation in Zion, and who has a furnace in Jerusalem." In this way this verse would stand in exact correspondence, with that other poetical description of the high esteem necessarily bestowed upon Jerusalem (Ps. lxxvi, 3) which has been dealt with above: "In Salem is set His tabernacle, and his habitation is in Zion." Isaiah means to say: "who has a foundation in Zion," that is his Sanctuary, "and who has a furnace in Jerusalem," that is the altar in this Sanctuary, in the same way as for "altar" *shulḥan*, table, has been metaphorically used in Is. lxx, 11; Ez. xliv, 16; Mal. i. 7, 12.

Again this same prophet makes a spirited allusion to an existing feature of Jerusalem. In the valley of B'ne Hinnōm was situated the spot called Tōpheth, the seat of the abominable Moloch cult. The name Tōpheth, as has been noted by Wellhausen, was originally spoken as תִּפֶּת *tēphat* and means simply hearth¹ (in Is. xxx, 33, the same word is used accompanied by a very fine abusive description of the rite); now in xxxi, 9 it is said: Jahve's hearth (=altar) is of a different nature, it is situated in his building (=Sanctuary); by this Zion and Jerusalem have been declared the seat, the stronghold of His glory, and he will watch over it jealously, no enemy's fury shall prevail against it.

¹ See Commentaries and Lexicons. Regarding תִּפֶּת Is. xxx, 33, it is said that here too *tophet* is to be read and the *he* belongs to the next word as the interrogative particle (see Gesenius). For the etymology of תִּפֶּת Hebrew שִׁפָּה has been adduced; it has not been realized that this root is extant in Targum, jer. and bab. Talmud and Midrash in the regular *Umlaut* תִּפִּי and תִּפֶּא, and so also in Syriac (see Jastrow, p. 1685, and my *Talmudische Archäologie*, I, 92, and note 214).

THE TENT BEAUTIFUL A STUDY OF PATTERN WEAVING IN TRANSJORDAN

BY GRACE M. CROWFOOT

"BLACK but comely, ye daughters of Jerusalem, as the booths of the Beduw, as the tent-cloths of Solomon."¹ So runs Doughty's rendering of the passage in the Song of Songs where the beloved seeks to excuse her swarthinness. Such a simile would have full value for any Beduin woman regarding her black tent with pride in its beauty. Doughty says: "to be a good wool-wife is honourable among Arab women."² They it is who spin the yarn, make their looms, weave the long strips and sew them together to make the tent cloths. They it is who spread and lift the tent, beating the pegs into the ground and pulling all taut with the long ropes, sometimes also wool corded of their own spinning, and they it is who lower it and pack it for the journey.

The Beduin home-maker is thus her own architect and builder and in Transjordan she is often her own decorator too, weaving handsome black and white pattern bands into her tent work. Sometimes the pattern runs the whole length of the tent wall, as in Pl. III. 1, sometimes the strip added at the top upper corners for strength is also woven in pattern, as in Pl. II and Pl. III. 1, but her best efforts are reserved for the *saha*, the dividing curtain between the section reserved for the owner and his guests (*esh-shiqq*) and the larger portion occupied by the womenfolk, children and stores (*el-mahram*), see Pl. II. and Pl. IV. 1. The curtain stands only breast high and the good wife can easily look over it and say a word in season to her husband or see if his guests lack aught.

We often saw and admired these decorated tents when making expeditions from Jerash during the years (1928-30) in which my husband and I were working there with the Yale and British School Expedition; between Madaba and Khirbat Mukhkhayat we saw fine tents of the Ghanamat

¹ C. M. Doughty, *Wanderings in Arabia* (ed. E. Garnett), Vol. I, p. 27.

² C. M. Doughty, *op. cit.*, Vol. I, p. 79.

(Pl. IV. 1) and tents of the Beni Hasan at places in the neighbourhood of Jerash and at Arak el Emir (Pl. II).

Little seemed to be known about this pattern work ; it is barely mentioned by Père Jaussen¹ ; Musil² adds more and gives a fine illustration of Talal ibn el Faiz of the Beni Sakhr seated in front of a patterned *saha* ; Kelman³ a good photograph of the patterned tent of Sh. Mohammed el Milhem of the Anazeh, near the Lake of Homs, but in none of these books is there any description of the weave. Friends tell me they have seen patterns also on the tents of the Howeitat, so the craft seems widespread in Transjordan. Whether it is found in Central Arabia is doubtful, Doughty mentions only stripes of black and white and Mr. Philby, whom we consulted later, cannot recall seeing more.

In all the tents we saw the pattern work strongly resembles tent work in the Western Desert of Egypt, especially that seen at the Amria Rug Industry at Burg el Arab, where the best weavers, Miss Thurstan tells me, were in her time those of the Walad Ali. The colouring differs ; the few tent pieces that I have seen from the Western Desert are in black with patterns in red, black and a little white, giving a rich and sombre effect, while the modern rugs of Amria are in indigo blues, white and asphodel fawns : straight black and white seems peculiar to Transjordan. There is also a difference in the patterns. They have similar elements in both cases, but the weaver of Transjordan tries to show all the patterns she knows, as a child would on a sampler, and indulges in another primitive pleasure, also, in dividing off her patterns into rectangles. (See especially Pl. III. 4.) In the Egyptian work

¹ Jaussen, *Les Coutumes des Arabes au pays de Moab*, p. 32.

² Alois Musil, *Arabia Petraea*, p. 128 and fig. 17.

" Im Inneren wird das Zelt durch ein etwa 1.7m breites, an die Stangen der Länge nach befestigtes Stoffstück in zwei Abteilungen geschieden. Ist es aus Wolle weiss und schwarz (fig. 17), selten aus rot gewirkt, so heisst es *Ma'nâd*, '*Enad*, *Sâha*, und jedes dreieckige Ornament nennt man *Nmêle* ; ist es ganz einfach, so nennt man es gewöhnlich *Mehğâr*. Diese Scheidetuch reicht vom Boden 1.7 m. hoch deshalb kann man darüber in die andere Abteilung sehen. Die erste Abteilung dient als Küche, Schlafstätte, Magazin und heisst gewöhnlich *Mhellet en-niswan* oder *Beit el-mehram*, die andere ist Empfangsraum für Gäste und heisst *eš-Šikk*."

³ John Kelman, *From Damascus to Palmyra*, p. 102.

single patterns are often highly developed, flowing on with variants or repeats but no cross lines, occasionally also, patterns other than geometric are attempted, such as stylized camels. Also in the Amria rugs (possibly by European suggestion) the warp patterns are ingeniously combined with cross bands and centre ornaments in twined weave such as are often seen on Beduin saddle and other bags. (See *P.E.Q.*, October, 1943, Pl. III. 3, 5.) Lastly the spinning is often remarkably fine and even. In colour, pattern and texture the Western Desert is often superior to Transjordan, but the craft seems to be fundamentally the same; to prove this, however, I had to see a piece woven in the latter country.

This for a time seemed difficult to achieve, and I could not even acquire a piece for study. Once, passing through Amman I saw a great bale in a store, and peeping out of the folds, a bit of pattern. I asked the storekeeper to unroll it for me, but he asked, "What was the use? What did I (with, I thought, some disparagement in his voice) want with the tent of a great sheikh?" I replied that I thought it had a fine *saha* inside and I wanted to enjoy the sight of it and he was so intrigued that his Arab graciousness returned and he waved his boy to unroll the tent. Sure enough it had a *saha* more magnificent than any I had yet seen, and friendly converse ensued, but it was not for sale and neither there nor anywhere else was any hope given me of buying a piece of pattern work, large or small.

Returned to Jerash I consulted with fellahin friends and spent some time watching their weaving. They were mistresses of the Beduin loom but, like the fellahin in Palestine, only attempted patterns that can be obtained in plain weave in the warp, by change of colour such as checks and stripes and, in the weft, by cross bars in twined weave. (See *P.E.Q.*, April, 1944, Pl. II, 4 and Fig. 3.) They had learnt from the Beduin how to make the *dibbiya*¹ a primitive pile textile used

¹ In the piece I saw made at Jerash, rows of long shaggy pile were put in with the Ghiordes knot, with several rows of plain weave between them. Dalman gives a snatch of song concerning the *dibbiya*:

Na'j el-jiye	Ewe with the fat tail.
Suf el-hariye	The wool of the silky haired one.
Yislah dibbiye	Is fit for the <i>dibbiye</i> .

for wraps in cold weather, but had never mastered the warp pattern weave, which, they told me, was very difficult and not all Beduin women even could weave it.

My best chance seemed to be to make friends with some of the Beni Hasan, who occasionally pitched their tents near Jerash, either in harvest time, when these absentee landlords came in to get their share of the harvest from the Fellahin cultivators, or when someone was ill and needed a doctor. Our workmen were sympathetic and used to tell me in the morning if a tent had appeared overnight above the town, warning me to be quick if I wanted to visit it as the Bedu would stay there no longer than they could help.

At last I found a tent whose owner, a sick man, had to stay some days for treatment. His daughter, Sitt Fathy, told me that she could weave in pattern and was willing to teach me what she could in the time, but, though she had black goat's hair by her she needed cotton for the white part. This was a surprise as I had taken it up to then that both black and white were of wool. She assured me that cotton was always used by her people,¹ and in times past was grown in the Ghor; now, she said, we must go and buy it in the *sug*. So with a good Fellaha friend, Sitt Jamila, we went to buy cotton, or, to be exact, I was ordered down the street to look at the view while they made the purchase in case my presence should send the price up.

Then the cotton had to be spun and here came another surprise. After the usual fluffing and teasing out with the fingers, the cotton was spun on a large wooden spindle by rotation in the hand with the whorl slanting downward, then the spindle was rolled on the thigh and finally any lumps were touched or rubbed out before the winding up. In this method the spindle is not dropped to spin in the air at all, but is twirled in the hand. I had seen it used before in Jerash for goat's hair (see Pl. III. 2, 3); both Fellahin and Beduin seemed to know it and use it as well as the more usual "drop and spin"; the latter is preferred for sheep's wool, the former for the shorter stapled goat's hair. It was interesting now to see

¹ Doughty, *op. cit.*, p. 79. "Good webster-wives weave in white borders made of their sheep's wool, or else of their gross-spun cotton yarn (the cotton wool is purchased in Medina or the sea coast)."

"rotation in the hand" used for cotton; in the Sudan and among Beduin in Egypt (Burg el Arab)¹ this method is used in a slightly different form for goat's hair and wool, but never for cotton; that was always spun with the "dropped spindle."

Another interesting point noticed was that Sitt Fathy, like the spinners of Jerash, rolled her spindle from knee to thigh, the opposite way to that in use in Egypt and the Sudan, where the roll is always from thigh to knee. The direction of the spin thus given is usual not only in Transjordan but, to the best of my knowledge, throughout Palestine and Syria; whatever method is used, the yarn is spun to the right (Z spun); I have seen it among Beduin at Sbeita in Southern Palestine and settled dwellers at Palmyra and in the yarn of belts woven by nomads on the Euphrates near Deir ez-Zor. In Egypt, both among Beduin and Fellahin, and in the Northern Sudan the spin observed is to the left (S spun). This difference appears to have existed in antiquity: R. Pfister has discovered that in textiles from Ancient Egypt the yarn is usually spun to the left (S spun), while among textiles found at Palmyra, which date from the beginning of our era, those dyed with the true murex purple and therefore to be attributed to the coastal regions of Syria have the yarn spun to the right (Z spun).² Pfister suggests that study of the direction of the spin in textiles may be a useful guide to their provenance, because custom in method is persistent in particular regions. The prevalence of spinning to the right in the borders of Syria at the present day is a good example of this persistence.

"Weaving waits on spinning." So runs the old saying but in the Beduin world it waits on doubling too, for all the material used, goats hair, wool or cotton must be corded on a handspindle to make that strong close fabric which will render the dwelling, at any rate when new, wind and waterproof. Three or four days therefore elapsed before I had a message that work was about to begin. When I reached the tent I found a pattern piece already set up and weaving in progress

¹ Crowfoot, *Methods of Hand Spinning in Egypt and the Sudan*. Bankfield Museum (1931), p. 10 and pls. 4, 5, 8, 9.

² R. Pfister, *Textiles de Palmyre*, 1934, p. 22. Also *Nouveaux Textiles de Palmyre* (1937), pp. 40, 41.

(Pl. IV., 4). The loom was a miniature Beduin loom (see illustration in *P.E.Q.*, April, 1944, p. 123, fig. 1), complete with four pegs, two beams, rod heddle and the usual sword and gazelle horn beaters and stick spool for weft. The warp was double for the pattern, a black and a white thread in each heddle loop and a black and a white equivalent on the shed rod (see fig. 1). The method consists in choosing the one of the two threads required for the pattern in either shed, the unwanted threads being dropped to float at the back where they give a loose replica of the pattern (see Pl. V.): the weft is not seen, the pattern being wholly in the warp. This is identical with the Western Desert warp pattern weave as seen at Burg el Arab.

The weaver's movements in making the pattern were delightful. First, she pressed with her right hand behind the heddle and took the heddle threads with her left hand in front of the heddle. Then, with thumb and first finger of the right hand she picked out the threads needed for the pattern holding them with the other three fingers. The piece being narrow she could hold about half the pattern threads in this way and then had to put in the gazelle horn to hold them safe while she gathered the other half. All the pattern threads were now held on the left arm while she slipped the sword beater through with the right hand. Then the sword was turned on edge to make the shed and the weft passed through it. To make the countershed the shed rod was turned on edge and the shed rod threads forced through the heddle and lifted. The pattern threads were chosen as before and the second throw of weft made. To get the close weave admired, the gazelle horn, held sideways, was used to pluck the warps down, four or five at a time. The weft was often controlled during the weaving by coiling it round the toe.

The work went on rapidly with so narrow a piece, and as each new design appeared, Fathy gave me its name, the ornaments on the neck of a horse, moon and stars, kohl pot, trees and the *rababe* or one stringed fiddle (see fig. 2 and note on p. 44). Even the narrow dividing patterns had names, her favourite being the *salalim* or steps. When the piece was finished, ending, as I was told was usual, with a plain white band, and given to me, I asked Fathy, whose people were in

haste to be gone, if she would weave me a real *saha* at her home camp out at Khatla by 'Ain en-Nebi and let me see it warped. The bargain was struck and with gifts and compliments teacher and pupil parted.

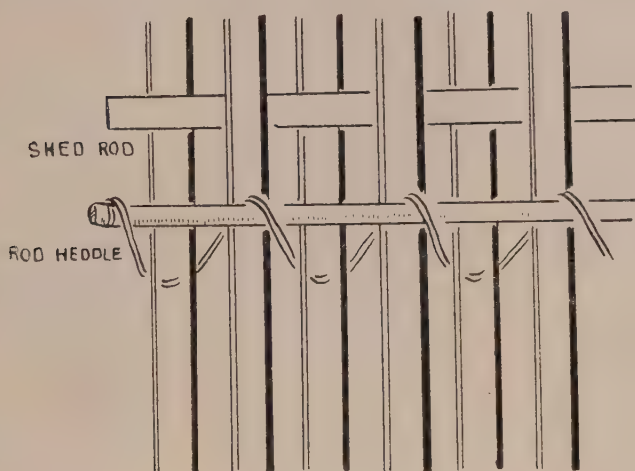
I waited long for the message and at last, fearing that the work could not be done before I, too, had to leave Jerash we sent out our foreman, Bekir, to Khatla. He returned having fixed a day for the warping and duly he and I rode out on donkeys to the camp. I found the loom already pegged out in the half shade of the tent (see Pl. IV., 2) and a small girl engaged in knocking in the pegs with a very large mallet. The loom was of the usual Beduin type, except that the beams laid behind the pegs, had warp sticks with them called the *aṣḥāb* or companions; the heddle rod was in place supported by two large stones. I was told that the length from beam to beam was five *ras*, measured by passing a bit of wool round the head five times and that this was the usual length though occasionally pieces as long as twenty *ras* are woven.¹

The warping. Two women took their places, one at the breast and the other at the warp beam. She at the breast beam said "Bismillah er-Rahman er-Rahim; baraka 'alel san'a," and then tied a warp thread to the warp stick, single, as the piece was to have a plain border. A child then took the ball of warp and walked up to the woman at the warp beam who also said "Bismillah," and then slipped a loop of warp over the projecting end of the warp stick and the child returned with the ball to the woman at the breast beam. She, having in the meantime made a loop over the warp on the heddle rod with a ball of yarn lying at her right, now took a loop of warp over her warp stick and again the child walked up the loom. When the pattern portion came, Fathy's sisters, Fathya and 'Ida, replaced the child, each bearing a ball, one white and one black, and the warp was laid double, a black and a white in each heddle leash and a black and a white on the shed rod (see fig. 1). While warping each woman lashed her

¹ Musil gives the usual length of tent pieces as 7 m., and the breadth as 70 cm. I have seen pattern pieces broader than this, up to three feet, but this is rare; to make a fine dividing curtain about four feet high two or more pieces are sewn together with the Beduin ornamental joining stitch in black and white.

warp stick to the beam with a cord at intervals of about ten to twelve warps, holding it meanwhile with her toe. After warping had gone on for some time a discussion began about the breadth. Was it sufficient to carry the good patterns? the moon and stars? the *rababe*? the coffee cups? They all agreed that it would and refused to warp more. So the weaver then took a thread and lashed the heddle loops above the rod, fastening in one of her silver rings for luck midway.

BEDUIN WEAVING



WARP THREADING FOR
WARP PATTERN WEAVE

FIG. 1.

The Weaving. She began to weave straightway. All went on as with the miniature piece except that instead of holding the pattern threads chosen out with the gazelle horn she used a flat piece of wood, rather like a smaller edition of the sword beater. With greater breadth the weaving was slow and evening came all too quickly. I told the weaver that we should be leaving soon and begged her to continue and send me the finished piece to Jerash where the remainder of the agreed price awaited her. Hearing no more, our foreman

went out again and reported that the piece was most beautiful but not finished. All I could do was to leave the money for her in Jerash and hope to have the piece forwarded to me. Later my friends reported that the weaver refused to send it in, awaiting my arrival. A good opportunity came when Mr. Hamilton had to pay a visit to Jerash and kindly saw Sitt Fathy for me himself, and asked for my *saḥa*. But he had no success: she was persuaded that some day I should return and be so pleased that I would give her large bakshish over and above the agreed price, and nothing that he could say or offer seemed to have the slightest effect on her. He said that she was quite charming and extremely tiresome and he couldn't see what was to be done about it. Later still I heard that she had married and gone away to a far wady so I never saw that *saḥa*, and had to try and console myself by considering it my wedding present to her.

In 1934 my husband and I paid a flying visit again to the Horsfields at Jerash. Mrs. Horsfield told me that a message had come up that if we wanted to buy a tent piece the merchants in the town had some for sale. So we went down to find out the truth of this strange thing. Indeed, the shops were full of the beautiful patterned work, and we bought pieces for ourselves and one, the finest we could see, for the Y.M.C.A. in Jerusalem. But there was little pleasure in that buying. Only dire necessity had compelled the Beduin women to part with their treasured tent pieces, famine had been bitter in the land and we couldn't even feel we were helping the women by buying their work for where were they? Wandered far away to seek grazing, many perhaps never to return. A straggler of the Beni Hasan, who begged her bread in the town, was sent up to us to interpret the patterns on our pieces (see fig. 2). She was amused and interested to explain them; our talk was mixed with this pleasure and with laments over her misery, and yet she spoke of the coming spring, the longed for *rabiā*, and her hope to meet with her own people again when those who had fled and survived would return to their own places.

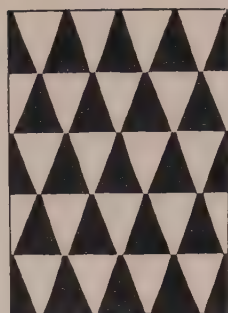
So ended my studies in Beduin pattern weave. Soon after I said farewell to Transjordan, a poor land some would say and a starving people. Yet a land which has strange beauty.



1.



2.



3.



4.



5.



6.



7.



8.



9.

FIG. 2.

NAMES OF PATTERNS, BENI HASAN

1. EL-HEJĀB	THE AMULETS
2. QUAD EL-BAUSH	?
3. HREIBE	LITTLE SPEARS
4. MA'ARIDH EL-JEMEL	CAMEL TRAPPINGS
5. EL-MIRAYA	THE MIRROR
6. QAMR W NIJM	MOON AND STAR
7. RUFUF EL-HAMMAM	PIGEON'S WINGS
8. EL MASHUR FATIH	THE ENCHANTED ?
9. 'ID EL-MIHBAJ	COFFEE PESTLE

(SEE NOTE BELOW.)

In the midst of desolate wildernesses there appear the amazing rock scenes of Petra and Er-Rum and also hidden valleys, green and fertile, which Musil, coming on suddenly, called "paradisiacal;" the ancient ruins too speak of a bygone fertility, Glueck has recorded literally hundreds of sites once occupied by a sedentary population and these could be re-peopled and prosper when peace is secure. And it is a land which has a ruler who is a poet, sons who have the gift of words and daughters who are artists in their tent weaving. I call such a land rich. "Herein is wisdom, beauty and increase."

NOTE ON NAMES OF PATTERNS

Names were collected from several women, but they seemed to vary a good deal, some of the designs shown on fig. 2 have more than one name. No. 1 was sometimes called *arqub el-umhar*, lit. the Necks of the Foals, with a sousentendu of the ornaments upon them, and sometimes, especially by fellahin, *fanajin qahwa*, Coffee Cups; No. 4 was often called *shajarat maqrana*, Trees joined? or horned? or *qusseib*, Little Reeds; No. 6 was Moon and Star when plain, but decorative variants such as those on Pl. III., 4 were the One Stringed Fiddle, *er-rababe*; No. 7, *rufuf el-hammam*, in a narrower version with sharper points was called *el-mahajin*,

Shepherd's Crooks. The sense of No. 2, *Qaud el-baush* is obscure, it is given also to a pendant ornament of coins which the design is thought to resemble. No. 8, as far as we could make out has the sense of release from or victory over enchantment, but why the name is applied to the pattern is uncertain. Still stranger is the name given to a zig-zagged version of No. 1, the Amulets; it is *khanig hammātuh*, Strangling his Mother-in-law! The women who explained it to us evidently regarded it as a joke, one seized the other by the neck and they both laughed heartily at our puzzlement. Fellahin often saw coffee cups in any pattern with spots or little crosses such as those on No. 6, and any design leading to a sharp point might be called *kef en-nimr*, the Tiger's Paw. A favourite design not shown is one of two linked diamonds called the *mukhaleh*, Kohlpot; a white spot in the centre of each being known as the *merwad*, Kohl stick.

These patterns and their names would provide a delightful field for further study and is recommended to future visitors to Transjordan and the parts of the Palestinian coast near Caesarea. I only once had opportunity to speak to the people who make such tents as that shown on Pl. III. 1 and no weaver was there to interpret the designs; I asked which tribe they belonged to and the answer was: "We have no *qabī'a*, but we are ruled by an Emir." Further enquiry into the craft of these people should be interesting.

WORDS USED IN WEAVING BY BENI HASAN, TRANSJORDAN.

Loom	Nōl
Breast Beam	Methna
Warp Beam	"
Warp Stick	Matraq
Both warp sticks	Aṣḥāb (Companions)
Warp	Sada
Weft	Luhma
Spool (for weft)	Mēsha
Heddle	Nir; nira.
Heddle rod	Minyar
Stone heddle jack	Huda, pl. Hawadi
Shed rod	Ḥaff

Sword beater	Minsāj
Gazelle horn	Mishqa
String keeping the crossing	Qelāde
String lashing heddle loops to rod	Kheit Qatar; Qatar en-nir.

A good comparative table of weaving words used on this loom is given by Dalman, *Arbeit und Sitte in Palästina*, Vol. V, p. 97.



TENT WITH PATTERNED SAHA, BENI HASAN, NEAR ARAK EL-EMIR, TRANSJORDAN

Photo by Robert Hamilton.



1



2



3



4

1. TENT NEAR CAESAREA, PALESTINE
2. SPINNING BY ROTATION IN HAND. JERASH
3. ROLLING SPINDLE ON KNEE. JERASH
4. PATTERNED SAHA. BENI HASAN



2



4



1



3

1. SHEIKH'S TENT, GHANAMAT, WITH LARGE PATTERNED *saha*
2. LOOM UNDER TENT, KHATLA. BENI HASAN
3. WEAVER AT THE LOOM, BENI HASAN. JERASH
4. MINIATURE LOOM, BENI HASAN. JERASH



BENI HASAN WARP PATTERN WEAVE. 2FT. 4IN. $\times$ 1FT. 8IN. WARP HORIZONTAL

(a) FRONT (b) BACK

TWO NEW COINS OF NYSA-SCYTHOPOLIS

BY STELLA BEN-DOR

IN connection with my note "Concerning the Era of Nysa-Scythopolis"¹ it may be of some interest to describe two unpublished coins struck in that mint which recently came to my notice.

The coin Pl. VI (fig. 1) is in the Collection of St. Anne (Pères Blancs) in Jerusalem.² (AE, 11.50 gr. $\uparrow$). The *obverse* shows the bust of *Caracalla* to right, laureate, wearing paludamentum and cuirass. The inscription around is effaced, except for the part to the right which reads ANTΩNE ---.

Reverse Temple with four Corinthian columns, pediment and arch over central inter-columniation; in the temple, Tyche wearing turreted crown or kalathos and long chiton standing right; her l. foot on half-figure of swimming river god, r. hand resting on spear, l. hand holding cornucopiae. Border of dots. The inscription reads NVCA (in. ex.), CKVΘ (on r., reading outwardly), ---A--- (on l., reading outwardly). To left and right of the pediment, the letters OC=270, obviously the date. Since the Pompeian era of 64/3 B.C. obtained in Scythopolis at that time³ year 270 of Scythopolis corresponds to A.D. 206/7. The coin was thus struck by Caracalla during the reign of his father Septimius Severus.

The coin (fig. 2) was found near Sdeh-Nahum, two miles to the north-east of Beisan and is in the Regional Museum "Beth Sturman" at Ain Harod-Tel Yoseph.⁴ (AE, 13.22 gr. $\uparrow$.) The *obverse* shows the bust of *Elagabalus*

¹ *Palestine Exploration Quarterly*, January-April, 1944, pp. 152-156, Pl. V.

² I have to thank the Rev. Père N. van der Vliet for his kind permission to publish the coin.

³ Cf. my note quoted above.

⁴ My thanks are due to Mr. N. Cimbalist who drew my attention to the coin and gave me permission to publish it.

to right, laureate, undraped. Around, the legend AVT· KAI· MA· AN [TΩNEINOC]. Border of dots. *Reverse* same as in coin No. 1. On r., the three letters ·CKV· are clearly visible; the left part of the inscription is off flan. The exerga contains the date ΒΠC=282 (the lower half of the B is off flan). Year 282 of Scythopolis is equivalent to A.D. 218/9.

The type of reverse represented on both coins is not recorded for Scythopolis, though tetrastyle temples with a standing Tyche occur not infrequently in other Palestinian mints, viz., at Caesarea, Diospolis, and Gaza. The only building represented on a coin of Scythopolis is a distyle temple within which the city-goddess is seated nursing the infant Dionysos.¹

¹ De Saulcy, *Numismatique de la Terre Sainte*, 1874, p. 288, coin of Elasebalus.



TWO NEW COINS OF NYSA-SCYTHOPOLIS

THE MIRACLE ON MOUNT CARMEL

BY A. LUCAS

THIS miracle related in 1 Kings xviii, 31-38 has always proved difficult to explain and it has been suggested that instead of water Elijah poured over the altar an inflammable liquid such as might occur naturally in the region of the Dead Sea, or that the fire was caused by lightning.

Without suggesting that the difficulty has been solved, I should like to draw attention to a parallel miracle described in the book of Maccabees in the Apocrypha, which is as follows: "For indeed when our fathers were about to be led into the land of Persia, the godly priests of that time took of the fire of the altar, and hid it privily in the hollow of a well that was without water, wherein they made it sure, so that the place was unknown to all men. Now after many years, when it pleased God, Nehemiah, having received a charge from the king of Persia, sent in quest of the fire the descendants of the priests that hid it. When they declared to us that they had found no fire, but thick water, he commanded them to draw out thereof and bring to him: and when the sacrifices had been offered on the altar, Nehemiah commanded the priests to sprinkle with the water both the wood and the things laid thereupon. And when it was done, and some time has passed, and the sun shone out, which before was hid with clouds, there was kindled a great blaze, so that all men marvelled. . . . And as soon as the sacrifice was consumed, then Nehemiah commanded to pour on great stones the water that was left. And when this was done a flame was kindled; but when the light from the altar shone over against it, all was consumed" (2 Macc. i, 19-22, Revised Version).

The only fuel likely to have been used for the altar at the time the fire was hidden in the well was wood, which Nehemiah also used, and, if burning wood had been put into a dry well and covered with a large quantity of dry wood, to keep the

fire alight as long as possible, some form of incomplete combustion would have taken place, which would have been a kind of dry distillation, the process being similar to that of making charcoal, with the result that the various products of charcoal burning would have been obtained, which, if the wood were wholly, or largely, coniferous, as it might have been, would have included such inflammable substances as carbon monoxide gas, methane (marsh gas), methyl alcohol, wood tar, volatile oils, rosin spirit and crude turpentine, and a mixture of some of these might have constituted the "thick water" found in the well, and when the wood on the altar was sprinkled with this inflammable mixture and the whole exposed to the strong sun a fire might have been produced.

What happened in Nehemiah's time may have taken place also in Elijah's time, and the "water" used to drench the altar may have been an inflammable liquid, since Elijah "repaired the altar of the Lord that was thrown down," from which time an attempt may have been made to conserve the "fire" similar to that described later, and with the same result, namely the production of a highly inflammable liquid. For Elijah's miracle, however, there was not any strong sun as the fire occurred "at the time of the evening oblation."

A PALESTINE YEAR BOOK¹

IN the preface to the *Statistical Abstract of Palestine* for 1943 which has recently reached this country Mr. G. E. Wood, the Government Statistician expresses the hope that this valuable work which has now reached its seventh annual issue will be gradually expanded into something more than an annual volume of statistics—into a Year Book—and steps in that direction have been taken with the present issue. For instance, the present issue includes, in addition to the usual statistical tables, chapters of comment in narrative form outlining the general background of the social and economic conditions of the country. In these chapters Area and Population, Vital Statistics, Migration and Naturalization, Prices and Education are dealt with.

In the case of Palestine the subject to which one generally turns first is that of population. The estimated population, apart from members of the armed forces at the end of 1942 was 1,620,005, of whom 484,408 or 29.9 per cent. were Jews. These figures compare with an estimated total population of 673,000 (67,000 or 10 per cent. Jews) in 1920 when the British first took over the administration of the country, with a recorded population of 752,048 (83,790 Jews) on the occasion of the first official census in 1922 and of 1,033,314 (174,606 Jews) on the occasion of the second census in 1931. The increase of the Moslems is, with the exception of about 10,000 immigrants and another 10,000 added to the population by frontier adjustments, entirely due to the excess of births over deaths. This rate of increase is 2.6 per cent. over a period of twenty years—a remarkably high figure. On the other hand the Jewish increase is more than 75 per cent. due to immigration, the natural increase being half that of the Moslems, 1.4, despite the inclusion of an undue proportion of the Jewish population in the age groups twenty to forty. The Christian population is largely temporary officials, British police, consular officers and their families and also men and

¹ Crown Agents for the Colonies. 10s. net.

women of religion. In this section of the population the natural increase is necessarily very low, but is compensated for to some extent by the high birth rate among the oriental Christians. According to the *Statistical Year Book of the League of Nations* the birth rate of the Palestinian Moslems is exceeded only by that of Formosa and that by only 0.4 per 10,000. On the other hand, the birth rate of the Jews of Palestine is exceeded not only by all oriental and South American countries but also by Rumania, Poland, Greece and Italy. The death rate among the Jews of Palestine is however the lowest recorded except that of Hawaii, that of the Palestine Moslems occupying the ninth place on the list, after India, Burma, Egypt, Mexico, Chile and others. It is clear that in the absence of immigration the proportion of the Jews in the population would continually decline and that if this proportion was raised to a figure, often suggested, of 33 per cent., immigration would still have to continue in order to preserve it.

In considering the distribution and density of population one must always remember that about half the country is desert and for all practical purposes uninhabitable. In the remainder of the country the density of the population has increased from seventy-two per square kilometre in 1931 to 114 in 1942. The increase in some of the districts—those in which Jews have settled—is outstanding: In the Jerusalem sub-district which includes the administrative capital, from 217.3 per square kilometre in 1922 to 381.1 in 1942, in the Jaffa sub-district, which includes Tel Aviv and a large number of new and older Jewish settlements, from 195 to 1,013.2, in the Haifa district, which comprises far more than Haifa town, from 55.2 to 199.6. There is obviously little room for further increase in many of these centres, unless considerable industrial development takes place. The Moslem population is overwhelmingly—by three to one—rural, although there is a slow move to the towns. The Jewish population is equally—also by three to one—urban and among it the same tendency is also increasing—almost a third of the Jewish population of Palestine lives in one city—Tel Aviv. The Christian population, in view of its peculiar construction is to a still greater extent urban—almost fourth-fifths.

A. M. H.

NOTE BY D. DIRINGER

I have not much to add or to change in my short article mentioned in the last issue of *Palestine Quarterly* by Dr. Birnbaum. I agree certainly with him that we should "attempt to tackle" the problem of dating Early Hebrew Inscriptions, and I repeat here what I wrote in my mentioned article, that "Dr. Birnbaum's attempt will certainly be appreciated by allepigraphists."

Yet, according to my opinion, even the present Dr. Birnbaum's article is not convincing, and his attempt cannot but be considered as an attempt. Citing my words in his footnote, Dr. Birnbaum forgets to continue the sentence written by me, and omits the words: "... to allow us to get positive results, from the chronological point of view ..." (my article, p. 54, and p. 51: "... for a sure dating ..."). It is exactly in these words where there lies the difference between his point of view and mine.

Dr. Birnbaum's method is too dangerous. When he asks "should inadequacy of available material be permitted to act as a permanent bar to research?", I reply no! And, in reality he cannot say that I have refrained from attempts to date the Gezer tablet or the Samaria Ostraca, using all the material available (archaeological data: internal and external evidence; epigraphical data: internal and external; linguistical data: internal and external, etc.).

Nobody has ever asserted that in dealing with early Hebrew inscriptions we may not use, for chronological comparison, other North Semitic inscriptions, or that there is a "difference in the basic forms."

However, I could never agree that use "made of two inscriptions only" (and utilizing documents of different types and regions) "will suffice." Dr. Birnbaum goes so far as to affirm that "from one point of view" "scantiness of material" "might even be said to be of advantage." It reminds of the expression used by some East-European "shadchen": "the one fault of the bride is that she is too beautiful"...

I repeat finally that it is very dangerous to *base* our dating on uncertainly dated inscriptions. (I do not say that such inscriptions may not be utilized, but only with caution.) In reality, I cannot agree with a scholar who writes : " It seems preferable to accept for the inscription (*a*) such or such date," and then " since the inscription (*a*) is dated so or so, and the inscription (*b*) seems to be later, the latter must belong to such or such date."

As to the details mentioned by Dr. Birnbaum, I may assure him that my notes are based on the notes I had written down in Istanbul after a very careful examination of the original inscription (the Gezer Tablet).

DAVID DIRINGER.

OBITUARY NOTICE

DR. PERCY D'ERF WHEELER, F.R.C.S.

DR. PERCY D'ERF WHEELER who died on November 28th, 1944, was the last of that band of notable medical missionaries in Palestine whom Bishop Blyth called " the five kings of Palestine " : they were, Wheeler of Jerusalem, Paterson of Hebron, Sterling of Gaza, Mackinnon of Damascus, Coles of Haifa.

Dr. Wheeler was the eldest son of Capt. D'Erf Wheeler, who was Chief of Police in Mauritius in days when the post retained its ancient state ; he just remembered the lumbering official coach-and-four, and the guard of *peons* wearing solid silver armlets engraved with their Chief's coat-of-arms. His parents died within a few weeks of each other, and the three little brothers were brought up in India by an aunt. Wheeler was always set on becoming a medical missionary ; he began his training at the Madras Medical College and completed it at St. Thomas's. These were years of intense work and privation, but he passed his examinations brilliantly. Wheeler's Biblical knowledge, his love for Palestine and the Jewish people, made his twenty-five years as Medical Superintendent of the English Mission Hospital at Jeru-

salem the happiest of his life. When he went out in 1885, the hospital was a house inside the walls, unsuitable for medical work and incapable of expansion. The splendid group of buildings on the Jaffa Road, comprising hospital, doctor's, nurses', and dispenser's houses, out-patients' department, and dispensary, known as "The English Hospital" which were opened in 1901, owe their being entirely to his energy and work. His knowledge of Jewish history, character and customs was profound and in many ways unique; and the Jews loved and trusted him, bringing their troubles and their joys to him as well as their ills; his personal servant, a descendant of the Prophet Malachi, would never serve any one else.

Dr. Wheeler was Hon. Local Secretary for the Fund in Jerusalem from 1896 (when he succeeded the late Archdeacon T. E. Dowling) until 1909. He threw the whole of his vast enthusiasm into this work, and his labours were rewarded by a growing number of local and other subscribers. His vivid lectures on the past and present work of the Fund, at the hotels in Jerusalem during the tourist seasons, attracted many new members from amongst the English and American travellers who heard him. He had the art of infusing his own enthusiasm into his audience, and often a lecture would be asked for—"if you can send Dr. Wheeler." He left Jerusalem in 1910, but continued to lecture and collect for the Fund at home. In 1913 the Royal Society of Medicine nominated him to a small Reference Committee formed at the request of the Privy Council. He joined the R.A.M.C. in 1915 and served in Egypt; later he had charge of large convalescent hospitals at Canterbury and Shoreham, receiving the Army Council's thanks for "his excellent work." In 1919, he was asked to go out to Jerusalem to re-open the Hospital. When he left Palestine finally in 1921, he worked amongst Jews in East London until disabled by an accident in 1937. He married Grace, a daughter of Bishop Blyth; they lost their two elder sons in the Great War; the youngest son, who served in that war and after it on the North West Frontier, has been serving in the M.E.F. since 1940. The only daughter has been doing war work during her husband's absence abroad, but was able to be with Mrs. Wheeler during the Doctor's illness.

ANON.

REVIEWS AND NOTICES

Isaiah : Chapters xl.-lv. Literary Criticism and History. By Sidney Smith, Litt.D., F.B.A., F.S.A., Keeper of the Egyptian and Assyrian Antiquities in the British Museum; Professor of Near Eastern Archaeology in the University of London ; Hon. Fellow of Queen's College, Cambridge. The Schweich Lectures of the British Academy for 1940. Published for the British Academy by Humphrey Milford, Oxford University Press. Pp. ix, 204. Three maps. Price 10s. 6d. net.

It is now thirty-six years since Professor Kennett delivered the Schweich Lectures for 1909 on *The Composition of the Book of Isaiah in the Light of Archaeology and History*. His brilliant lectures represented, perhaps, the extreme limits reached by partition theories as applied to the great collection of prophetic utterances assembled under the name of the eighth century Hebrew prophet Isaiah, the son of Amoz. Professor Sidney Smith's no less brilliant lectures, with their wealth of notes, represent a welcome return to a more balanced judgment of the critical and historical problems raised by those chapters of the book of Isaiah which he has selected for his subject.

The first lecture is, in the author's words, "a brief account of recent criticism." The vagaries of the *Gattungsforschung* school of critics receive severe handling, as also the indiscriminate resort to textual emendation on metrical or other grounds. The durable results of recent criticism are thus summed up: "Few doubt that the main bulk of these chapters was written sometime in the years 547-538. The tendency has been increasingly to regard interpolations as few and brief, and nothing for which a reasonable historical explanation can be found need be treated as spurious. The chapters were, too, what they appear to be, not a book, but a series of prophetic utterances, and very few critics claim that any are considerably later than the fall of Babylon. Whether all the utterances were necessarily so short, or fell into tradi-

tional types, as some critics think, is open to doubt ; but that each complete utterance is logically independent and must be judged by itself, without preconception, is one of the great advances due to recent work. There is, for example, no proof of chronological order in the arrangement of the utterances. Finally, in spite of much emendation and tinkering, the consonantal Hebrew text has been proved exceptionally sound, and there need be no doubt that it provides a reliable basis for historical deductions. It must be a first principle, in using the text as an historical source, to avoid adopting any emendation which alters the sense of the consonantal text, or which avoids a pregnant expression to substitute one less forceful."

The second lecture, dealing with the historical events of the period between 547 and 539, provides valuable new light on an obscure portion of history, and at the same time clarifies certain difficult passages in the text. This is a field which Professor Smith has made particularly his own, and this lecture will be found of the greatest help in the elucidation of Isaiah xl.-lv. One difficult verse, xliii, 14, upon which the ingenuity of commentators has been expended in vain, becomes clear in the light of the historical situation, and emendation is shown to be unnecessary. Another passage xli, 6-7, which most commentators have agreed in removing from its context and placing in the context of xl, 18-20, is shown to have no relation to the making of images, but to be in its right place where the traditional Hebrew text has it.

The third lecture will probably cause some disquiet in theological circles by reason of its determined rejection of the almost universally held separation of the oracles commonly called the "Servant Passages" from the rest of the oracles comprised in Isaiah xl.-lv. Professor Smith assigns all these passages, with the exception of chapter liii, to the same author as the rest of the oracles. He explains the first 'Servant' oracle, xlii, 1-4, as referring to Cyrus; the second, xlix, 1-6, as an utterance of the prophet about himself, describing his change of attitude in view of the frustration which he had experienced in the first part of his career; the third oracle, l, 4-9, is explained as the prophet's description of the opposition and persecution which he was meeting with from those of his own people to whom his message was addressed; the

last oracle, lii, 13–liii, 12, is by one of the prophet's followers and describes his sufferings and death at the hands of his enemies, and an assertion of his triumphant vindication by Yahweh..

The strength of Professor Smith's argument lies in the way in which these much-discussed passages are set in a particular historical perspective and shown to be coherent and intelligible in that setting. Possibly the Achilles' heel of the position lies in the necessity of assigning the last passage to another hand. Once it is admitted that there is an interpolation by another hand and of a later date, the way is open to the suggestion that the rest of the passages may be from the same hand, describing the experience of the prophet during the second part of his career, and depicting the impression which he made upon such of his people as were prepared to accept the point of view of the author of the last passage.

Professor Smith's contribution to the study of these important chapters of Isaiah is marked by originality and soundness of critical judgment. It is perhaps the first time the task has been attempted by a first-rate historian who is at the same time a Semitic scholar of European reputation and thoroughly familiar with the original sources for the history of this period. This very significant essay in the interpretation of Isaiah xlv will be received with the respect and consideration which its quality merits.

S. H. H.

The British Consulate in Jerusalem in Relation to the Jews of Palestine, 1838-1914. Part II, 1862-1914. Edited with Introduction and Notes by ALBERT HYAMSON, O.B.E., F.R.Hist.S., London: Edward Goldston, Ltd. One guinea.

The plan and salient features of this valuable and scholarly work which Mr. Hyamson has now completed under the aegis of The Jewish Historical Society of London, were outlined in the review of the First Part (October, 1940, p. 166). His custody of the archives of the British Consulate, when he was himself resident in Jerusalem, gave him full opportunity of examining in close detail the many difficulties and delicacies which attended the endeavour of the British Govern-

ment to afford protection to Jews in Palestine. The strongly individualistic ways of James Finn, who was Consul for seventeen years, are abundantly illustrated in the correspondence and other documents which Mr. Hyamson prints. Mr. Finn would willingly have taken all Jews, of whatever nationality, under British protection, if he could find excuse for doing so, and he likewise took upon himself to administer punishment, which in turn got him into trouble with the Foreign Office. On being asked to explain why a certain Rabbi had been imprisoned by his order he followed up his explanation of the complicated circumstances by sending a Hebrew address from Jews in Jerusalem to Queen Victoria and calling attention to its spontaneous testimony to his own "sincere zeal." One clause of the Address ran :

"Therefore do we cast this our Petition before Thy throne, O merciful Queen, that Thou wouldest magnify Thy mercy unto Thy servants dwelling in the Holy Land, to ordain the Consul Mr James Finn, that he should remain in his office here, to protect Thy servants with mercy as heretofore until now."

A number of Jews, not British subjects, reinforced the petition in a marginal note.

The documents in this volume are remarkable for the evidence they afford of the strength of British influence in a country then under Turkish rule. Again and again the offices of the Consulate were invoked in matters which were not obviously within its purview, and throughout there is the pre-occupation with the Jewish immigration problem which has persisted more or less acutely for a hundred years. Mr. Hyamson has performed a valuable service to historical studies by his skill in presenting so fully documented a conspectus of a most formative period in the political development of the Holy Land.

C. B. M.

The Committee have to acknowledge with thanks the following :

The Antiquaries Journal, July-October, 1944.

Bible Lands, July-October, 1944.

Expository Times, LVI, 2-6.

Religions, October, 1944, January and April, 1945.

Scottish Geographical Magazine, December, 1944.

Journal of the Royal Society of Antiquaries of Ireland, LXXIV, Part III.

Bulletin of the American Schools of Oriental Research, Nos. 95 and 96.

Annual of the American Schools of Oriental Research, Vol. XXIII.

The Biblical Archaeologist, September, 1944.

Bulletin of the Metropolitan Museum of Art, Vol. III, No. 1.

Journal of Near Eastern Studies, Vol. III, 3 and 4, and Vol. IV, 1.

Harvard Theological Review, July, 1944.

Jewish Quarterly Review, XXXV, 2 and 3.

American Journal of Archaeology, July-September, 1944.

American Journal of Philology, July, 1944.

Hurrians and Subarians. By Ignace J. Gelb. Oriental Institute of the University of Chicago Studies in Ancient Oriental Civilization, No. 22.

The Story of a Forgery and the Mesa Inscription. By Professor A. S. Yahuda. (Reprint from *Jewish Quarterly Review*, Vol. XXXV, No. 1.)

Proceedings of the Royal Canadian Institute, Session 1943-44.

Transactions of the Royal Canadian Institute, October, 1944.

Quarterly of the Palestine Department of Antiquities, Vol. XI, No. 3-4.

Berytus, Archaeological Studies, 1943.

Al Machriq, Revue Arabe, Nouvelle Serie, No. 1.

NEA ΣΙΩΝ, 1944.



Palestine Exploration Fund

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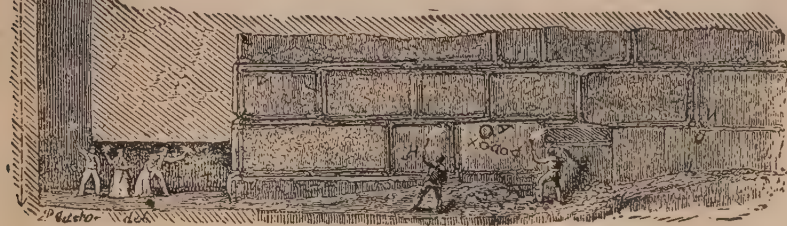
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THE PALESTINE EXPLORATION FUND

NOTES AND NEWS

WE are pleased to announce that His Grace the Lord Archbishop of Canterbury, the Most Reverend Geoffrey Fisher, D.D. has consented to become President of the Palestine Exploration Fund.

THE GENERAL MEETING OF THE PALESTINE EXPLORATION FUND took place at 2, Hinde Street on 29th June, 1945, when Mr. J. W. Crowfoot presided. Like its predecessors of the war years, it was of a business nature only.

The death of the President, His Grace the Lord Archbishop of Canterbury, the Most Reverend William Temple, D.D. which was announced in the last issue of the *Quarterly* was recorded with profound regret.

The minutes of the last meeting, held on 3rd June, 1943 were read and confirmed.

The Annual Reports and Accounts for years 1943 and 1944 were adopted.

Election of Officers and Executive Committee. The Hon. Secretary stated that he had regretfully to announce the retirement of Sir Charles Arden-Close from the office of Chairman of the Executive Committee.

Sir Charles's retirement was received with expressions of great regret and, on the motion of Mr. Crowfoot, it was

RESOLVED that this Committee place on record an appreciation of the manner in which, for sometwenty-six years he has devoted unstinting service to the welfare of the Palestine Exploration Fund, as its Treasurer from 26th November, 1919 till 12th November, 1930 and and since then as Chairman in which capacity he proceeded with zeal and enthusiasm to plan and carry out some much needed reforms for the improvement of the Fund's property, No. 2, Hinde

Street, by the provision of a lecture room and accommodation for the better display of the library and museum collections. Throughout his long term of office, including the recent years of war and difficulty, the affairs of the Society have received his unremitting care and attention. In registering their regret at the termination of his services as Chairman, the Committee is gratified that Sir Charles's willingness to continue to serve on the Executive Committee will thus accord them the benefit of his experience and wise counsel.

On the proposal of Mr. W. H. Boulton, the Officers with Mr. J. W. Crowfoot as Chairman and the Executive Committee as at present constituted, were re-elected.

Messrs. Turquand, Youngs, McAuliffe and Co. were re-appointed Auditors for 1945.

THE BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM held its Business Meeting of Subscribers at 2, Hinde Street on 29th June, 1945 with the President, Sir Frederic Kenyon, G.B.E., K.C.B. in the Chair.

The President announced that His Grace the Archbishop of Canterbury, the Most Reverend Geoffrey Fisher, D.D. had kindly consented to become a Vice-President in succession to his late lamented predecessor Archbishop Temple.

The Nineteenth and Twentieth Reports of the Council, with Accounts for years 1941-42, 1942-43 and 1943-44 were adopted.

The Officers and Council were elected with Sir John Myres and Mr. J. W. Crowfoot as Joint Hon. Secretaries.

CHANGE OF ADDRESS. The Office of the Fund has now returned from Leatherhead to 2, Hinde Street, W.1, which is open daily from Monday to Friday inclusive between the hours of 10 a.m. and 4 p.m., when the library is available for the use of subscribers. The museum collections will be restored to their cases on completion of war damage repairs.

Since the April issue of this Journal appeared the long-awaited end has come, and with dramatic suddenness the war

in both the western and the eastern theatres has been brought to a victorious conclusion. An equally sudden change in the political affairs of this country has taken place, and the herculean task of reconstruction has now fallen upon the shoulders of a new Government. All men of good will, whatever their political affiliations, will wish them the courage and wisdom necessary for the accomplishment of it. Problems of reconstruction and expansion also lie before the Committee of the Palestine Exploration Fund; Sir Charles Arden-Close, after many years of devoted service to the Fund, has retired from the Chairmanship of the Executive Committee and has been succeeded by that eminent archæologist, Mr. J. W. Crowfoot. The transaction of the affairs of the Fund is again being carried out at the offices of the Fund at 2, Hinde Street, Manchester Square, and the Library is open for the use of members. It is a moment which calls for the help of all the friends of the Fund, and of all who believe in the permanent value of the work of the Palestine Exploration Fund.

The present issue is entirely devoted to an article by Mr. J. W. Crowfoot. It deals very fully with the much-discussed problems, still not wholly solved, of Ophel. Apologies are therefore due to those contributors whose valued contributions are unavoidably held over until a later issue. Arrangements will be made as soon as increased paper and labour become available for the resumption of the quarterly issue of this Journal.

The April issue of the *Harvard Theological Review* contains an interesting article by Vivian and Isaac Rosensohn Jacobs on our old friend The Myth of Mot and Aleyan Baal. The article reviews earlier interpretations of the relation between these two important figures in the fertility rites of Ugarit, and attempts to restate the nature of their relationship in the light of further studies. The Ras Shamra material continues to occupy the attention of American scholars, with valuable results. It is to be hoped that the return of peace may enable British scholars also to turn their attention to this field which still contains so much that is unexplained. Apart from American contributions the Scandinavian Ivan Engnell is the

only scholar who has produced published work recently in this field. But of course it has not been possible to know what work has been done by French students on this subject during the war years. It is to be hoped that *Syria*, where all the Ras Shamra texts have had their first publication may soon be again available to British students.

In the April issue of the *Jewish Quarterly Review*, Dr. Alexander Altmann of Manchester discusses an interesting but little known subject in his article entitled *The Gnostic Background of the Rabbinic Adam Legends*. The figure of Adam has always been a favourite subject for Rabbinic and medieval speculation. Milton was familiar with such legends, and Blake has drawn upon these sources. Dr. Altmann's article contains much valuable and interesting information on the use which the Gnostics made of Midrashic elaborations of the Adam stories. A particularly interesting part of the article consists in the discussion of the symbolic significance of the mystic sleep which falls upon Adam in the Genesis story. We are reminded that in John 1, 51, the author shows himself aware of the Midrashic interpretation of Genesis xxviii, 12.

One of the most valuable and up-to-date summaries of the light thrown by the Ras Shamra material upon the Old Testament is to be found in an article by Professor Ginsberg in the May issue of *The Biblical Archaeologist*. It is called *Ugaritic Studies and the Bible*. Dr. Ginsberg is one of the foremost expositors of the Ras Shamra texts, and, with Professor Albright, has been mainly instrumental in the correction of many earlier misinterpretations. One of the two examples of the special alphabetic script of Ugarit discovered elsewhere, namely, the bronze blade from the neighbourhood of Mt. Tabor, is published and discussed by Mr. Stanley Yeivin in vol. 2 of *Kedem*, the new periodical of the Jewish Museum of Antiquities. The Journal in question contains a good photograph of the object with its inscription.

Attention should be called to the publication in the United States of a new historical atlas to the Bible. It is entitled *The Westminster Historical Atlas to the Bible*, and is the work of

Professors Wright and Filson of McCormick Theological Seminary. It will be reviewed in this Journal by Professor H. H. Rowley. It promises to be the standard Bible Atlas for some time to come.

The book of Ecclesiastes receives unusual attention in the April issue of the *Journal of Near Eastern Studies* which contains two articles of interest on particular problems of that book of the Bible. Professor W. A. Irwin offers a convincing re-interpretation of the difficult passage in ch. viii, vv. 2-9, showing that the entire passage is a satirical commentary on the ways of a royal court and its intrigues. In the other article Professor Staples discusses the word "profit" in Ecclesiastes and its bearing on the two views of the nature of evil current in the author's time. Both articles are worth notice.

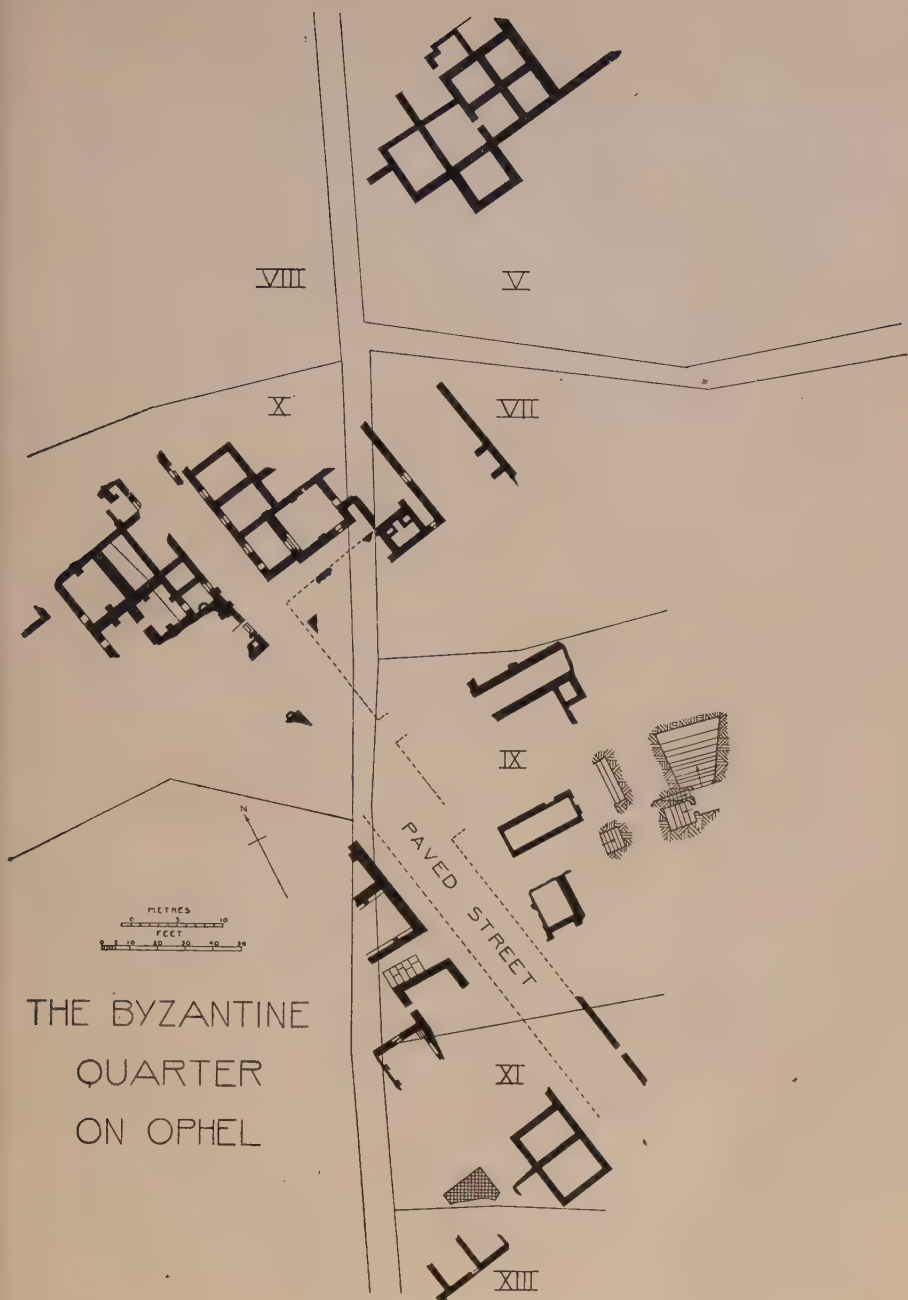
Egyptian archaeology is very closely allied to Palestinian, and a loss to the former cannot but be felt by the latter. The current volume of the *Egyptian Journal of Archaeology* records the passing, at a ripe age, of three scholars who have each made distinguished contributions to Egyptology. They are Sir Herbert Thompson, Dr. W. E. Crum, and Sir Henry Lyons. The first two were pre-eminent in the field of Coptic and Demotic studies, while the third was a former Director of the Egyptian Survey Department, and the author of various books and articles on subjects relating to Egyptian studies.

OPHEL AGAIN

BY J. W. CROWFOOT

OPHEL was visited by a number of expeditions between 1923 and 1928. M. Weill resumed his excavations at the south end of the spur, and the middle portion of the area between the city walls and the pool of Siloam was explored by the Palestine Exploration Fund. Excavations were made on behalf of the Fund in six of the walled fields which lie on both sides of the path leading to the pool: fields V and VII and the east half of field IX were excavated in 1923-5, field X on the west side of the path in 1927, and in 1928 a long strip which stretched half way across fields IX and XI and included a small part of field XIII (see fig. 1). The two last expeditions were sent at the instance and charges of Sir Charles Marston and the work was carried out by the British School of Archaeology. This paper is concerned with the remains of the later periods which were discovered in the campaign of 1928. The older remains then found were described in the *Quarterly Statement* for July, 1929; photographs of some of the later finds were published in progress reports issued previously in the same year, but they had not been properly studied at that time and I did not appreciate their significance.

Since the destruction of Jerusalem in A.D. 70 the broad depression of the Tyropoeon valley which once divided Ophel from Zion has been filled in so completely that it is impossible to see now where Ophel ends and the valley begins. How this filling came about was partly revealed in 1927: we struck the rocky bed of the valley some 50 ft. below the surface of field X and extensive remains of the Byzantine and earlier periods were found right across the field, but only two insignificant floors of any later date. In 1928 more Byzantine buildings came to light, but with them much more of still later date. These discoveries suggest a revision of some of the dates



THE BYZANTINE
QUARTER
ON OPHEL

FIG. I

previously proposed and add new sidelights on the history of the region. In the Arab period, under the Latin kings of Jerusalem, and again under the Ayyubid and Mamluk sultans of Egypt, Ophel appears to have been the site of a fairly affluent quarter or suburb of the city, inside the walls at one time, outside them at others. Occupation was almost if not quite continuous for more than a thousand years, and building levels, as is usually the case in civilized communities, changed very little. The different periods are not divided consequently by the occupational deposits for which archaeologists pray; the remains are mixed up together, a very late floor sometimes lying two or three feet lower than a comparatively early one a few yards away. With little help from datable deposits it would have been impossible to disentangle sequences and periods if there had not been changes in orientation at different times and if the remains of the houses, scanty as they were, had not reflected in one way or another the age to which they belonged, but with this guidance several stages in the history of the site become clear.¹

Two major changes have taken place in the area, the first some time after the foundation of Aelia by Hadrian (135), the second after the Turkish conquest: each was succeeded by a period in which levels have been relatively constant. The story is not one of slow, regular accretions from century to century, like that with which excavators of desert *tells* have made us familiar: it is more like that of old towns in the west such as Lincoln, where levels rose about ten feet after the desertion of the Roman city and have remained practically unaltered since the medieval re-occupation. If there ever was a *tell* on Jebusite Ophel, it was destroyed in early days, and the indestructible objects, potsherds and the like, were swept into crevices in the rock or down the slopes of the valley.

In Part I I have given a general survey of the resultant picture, divided into five periods—Late Roman, Byzantine and Arab, Latin, Egyptian, and Turkish: in Part II the individual remains on which this reading is based are described

¹ In a review of M. Weill's work farther south Père Vincent wrote: "On ne peut s'aider en cette tâche que du plan sommaire et des particularités d'exécution, car le remblai s'est trouvé de la plus déplorable stérilité archéologique" (*RB*, 1921, 417).

in detail. Some repetition has been unavoidable, but I have tried to reduce it to a minimum.

* * * / * *

Mr. George Horsfield and Mr. Iliffe have been kind enough to read a draft of this paper : I am indebted to them for several valuable criticisms. Mr. Iliffe has also re-examined the pottery which is in Jerusalem and given me his views about dates. Other friends in Jerusalem who have helped me are Dr. Mayer, now Rector of the Hebrew University, Dr. and Mrs. Ben-Dor, and Mr. Hamilton, now Director of the Antiquities Department. War conditions have prevented discussions with Professor Sukenik and Mr. Johns who worked with me during the excavations, but I hope that most of what they gleaned from the small finds and the coins had already found its way into my notes or diary.

The field plans were made by Mr. William Gad. He plotted the remains, the buildings stone by stone, on three sheets : (a) the early walls and the rock workings, (b) the Byzantine remains, (c) the later walls : he also took an immense number of levels, far more than are reproduced on the plans now published.¹ The materials on sheets (a) and (b), which included Latin rock workings, have been combined on Plan 1 to show all stages down to the Latin, and the different periods have been indicated by colour or hatching : the drawing is the work of Mr. W. F. Grimes of the Ordnance Survey. Plan 2 has been made from a tracing of sheet (c) with an inset of remains erroneously plotted on sheet (b) : for this I am indebted to Mr. Meen and Mr. White, of Beccles. The sketch on Fig. 1 is by Mr. Sinclair Hood from a mosaic compiled by Mr. A. G. Buchanan : the field boundaries and the detail in fields V and VII have been taken from the General Plan and Professor Macalister's surveys in *P.E.F. Annual IV*, the detail in field X from Mr. Gill's plan in *Annual V*, and the detail in fields IX, XI and XIII from Mr. Gad's work. The original sheets have been handed over to the Palestine Exploration Fund.

¹ The levels were taken with an English instrument marking feet and tenths of a foot, and the readings were reduced by Mr. Gad to heights above sea level calculated from a bench mark at the Bab el Magharba. On the plans and in the text the first two digits have been omitted : L.55.5 therefore stands for 2,255 ft. 6 in. above sea level.

PART I

1. *Late Roman (plan 1)*

In 1927 when we were digging above the Tyropoeon valley in f. X, there were only two places where we found buildings that were older than the destruction of Jerusalem in A.D. 70. At that time the ridge of Ophel had ended in a steep scarp under the footpath which forms the east boundary of f. X, and at the foot of the scarp there was a gate with towers on each side. The accumulations in front of the towers and between them had been so much disturbed by later walls that we could not determine the exact level of the road which led through them but, in all probability, it was not more than two or three feet above the rock on which the towers were founded. The other early building we found was in the middle of the valley, some 70 feet farther west: it was the ruin of a substantial house with two cellars beneath it and the floor of the cellars was very close to the bottom of the valley. Some large natural boulders were lying on the slope between the towers and the house, and it was plain that the configuration of the valley had changed very little before these buildings were erected. In both places some walls were still standing nearly 20 ft. high and the next constructions we came upon were the substructures of buildings on much higher levels. A domestic cistern stood above the valley house, and in front of the towers a series of very solid foundation walls¹: in both cases the superstructures had been scrapped in the Byzantine period when this area was replanned on a different axis. Only the substructures remained to mark the first significant stage in the transformation of the site. It consisted in the creation of two new levels of occupation—(1) a high level, even with the crest of the Ophel scarp, formed by the walls in front of the towers, and (2) the level of the house to which the cistern belonged: the second was about 15 ft. lower than the first and both were some 20 ft. above the rock. The Ophel building platform had crept farther west, the valley had become narrower and shallower. The date of these operations can only be fixed roughly: most of the coins and potsherds found in accumulations adjacent to the new levels date from

¹ See *Ann. V*, ch. I-III and pl. xxii on which the Late Roman walls are coloured yellow: the cistern is No. 46.

round about the time of Constantine but fragments of stamped tiles of the Xth Legion suggest that the reoccupation may have started earlier.¹

The area excavated in fields IX, XI and XIII lay south to south-east of field X. The west side of these fields stretches over a deep section of the valley and on this side we found two more buildings which ante-date the great destruction—a vast double cistern which abutted on the south gate-tower and filled the N.W. corner of field IX, and a long Hellenistic wall which reached from under the south wall of the cistern to the middle of field XI.² The terrain, however, was rather different: the scarp behind the towers continued as far as the cistern, of which it formed the east side, but petered out lower down and south of the cistern the east-west descent from the ridge to the valley was gradual. In this strip there was a drain and two cisterns (E, 47, 107 on the plan) which belong to the same horizon as the Late Roman buildings in field X. Drain E was built in debris which had accumulated above the ruins of the Hellenistic wall, and the floors of both cisterns were sunk through Hellenistic masonry to the rock. Drain E ran under a series of Byzantine buildings (18, the street, 46) on the later axis; cistern 47 was destroyed by the Byzantine 43 (see Pl. VII, 1) and cistern 107 by the south wall of 114 which was in turn destroyed by later builders. In make as well as in position the cisterns were like the Late Roman cistern in field X, and had been constructed for houses of which nothing else remains. The house served by 47 must have stood on approximately the same level as that above the towers.

Farther east, as one climbed the slope, the rock was honey-combed with old workings. The most spectacular of these are Byzantine or later, but there are some which must be pre-Byzantine because they are sealed by floors of that date and it seems that they too are probably Late Roman, not earlier. They

¹ Four were found in 1928, others earlier, see *Annual* V, 77, 86. Another legionary tile was found on Ophel farther south by Guthe (*ZDPV*, 1882, Taf. x). The Xth Legion was transferred to Gaul shortly after the middle of the third century (Abel in *Jérusalem* 893).

² These buildings have been described in *P.E.F.Q.S.*, 1929, 156 f. The long wall dates from the second century B.C., to judge from a small hoard of coins found by it, but its function is uncertain; to the south it ended "in the air," and it may conceivably have been the foundation of a stoa.

include drain A which took off drain E and should be of the same period, and four examples of a class of monument which was common in Roman Palestine (23, 133, 129, 132). In our fields these monuments consist of short flights of steps, hewn in the rock, often three or four only in number, frequently retaining traces of plaster and leading nowhere. Some were probably storage vats, others were certainly baths. Several were found farther south on Ophel by previous explorers, Guthe, Bliss and Weill: the last named has identified one series as parts of a bathing establishment (*balnéaire*) connected with the synagogue of Theodotus.¹ A finer example which is clearly one of the baths of Count Eugenius (13 in field IX, see p. 93f and Pls. X, 2 and XI, 1) shows that the type persisted into the Byzantine period. At Samaria others have been found: a small one cut in the rock under a shop in the columned street was obviously a storage vat, others with built steps were certainly baths: all were of the Late Roman age.² An odd feature on which Miss Kenyon comments is the absence of drains, they "would have had to be baled out by hand": perhaps, like some modern Japanese, Palestinians washed before getting into the bath and used the same water again and again.

A large deposit of Late Roman pottery like that from field X was found near cistern 107, but as it had been moved in medieval times—it lay between two medieval floors (see p. 103)—it did not add to our knowledge of the house served by this cistern.

The remains we have listed are well distributed over the area and suggest that most of the ground explored in 1928 was occupied by domestic buildings before the Byzantine revival, but the new high level seen in field X does not appear to have extended beyond the middle of field IX; south and east of this the level of occupation was still close to the rock.

2. *Byzantine and Arab (plan 1)*

Hundreds of sites littered with Byzantine potsherds, and scores of ruined churches and other buildings prove how prosperous Palestine and Transjordan had now become. A picture of Jerusalem at what Abel (*Jérusalem* 992) calls the apogee of its splendour, towards the end of the sixth century, survives

¹ Weill, *La cité de David*, 183 f.

² *Samaria-Sebaste I*, 52, 132, 134-6; pls. lii, liii, lxxii f.

on a mosaic at Madaba : it shows a walled town traversed by two colonnaded streets and thronged, of course, with churches. The part of the mosaic which contained the south end of the city is broken, but we know that the Empress Eudocia, who was living in Palestine from 444 to 460, restored the old wall skirting Ophel and Zion. Both the southern hills thus became ripe for fresh development. On Zion, Bliss and Dickie, the explorers to whom we owe most of our knowledge of Eudocia's wall, found two paved streets of this date : the lower street led to a gate in the wall with four sills, one above the other : the bottom sill must date from Eudocia's time, the top one may be some centuries later.¹ On Ophel a brand-new quarter with another street, paved like those on Zion and about the same width, was shortly to take shape (Pl. VII, 2).

Ophel street. Most of the earlier constructions in this region including a monumental way descending in steps to the pool of Siloam (Bliss, 140), were laid out from N. to S. or S.S.W. : the Byzantine street ran from N.N.W. to S.S.E., it crossed the Tyropoeon obliquely in the east half of f. X and continued in the same line through fs. IX and XI to the middle of the Ophel spur. It was this orientation which necessitated the demolition of the Late Roman buildings. On the surface the over-all pattern for some distance on both sides of the street was altered, but the levels of the new works were ruled by the levels recently established : in f. X and at the N.W. corner of f. IX the new L.R. high level provided a ready-made embankment to carry the street and a ribbon of houses on each side : on the new low level in f. X more rooms opened on a parallel alley : farther S. and E. in fs. IX, XI and XIII Byzantine builders like the Late Roman clung close to the rock.

The street points N.W. towards the Dung gate, but we do not know yet how, or if, it made contact with the colonnaded street which ran past the temple precinct,² and until the

¹ *Excavations at Jerusalem*, 1894-1897, General Plan 1, and pp. 52, 78, 324.

² Recent soundings in connection with a new sewage scheme have uncovered some paving which is apparently of early Byzantine date on the line of this road, west of the central entrance to the Haram (see notes by Johns and Hamilton in *Q.D.A.P.* I, 97 and 105), and more has been found west of the Dung gate on both sides of the south wall. The latter finds are still unpublished and I have to thank Mr. Hamilton for leave to mention them. The level of the paving found south of the wall is m. 720.98 according to a sketch sent me by Mr. Hamilton and it is difficult to see how this level can have been reached from our street without steps.

ground north of f. X has been excavated we cannot even be certain how it reached the west side of the Tyropoeon. Herod would probably have bridged the valley with a viaduct built of specially quarried stone, but later generations did not command Herod's resources in manual labour : Procopius dilates on the vast substructures prepared for Justinian's New church precisely because such work was exceptional at this time : on Ophel, as elsewhere, Byzantine engineers re-employed old materials and economized labour wherever they could : they may have continued the embankment right across the valley. In f. X they seem to have carried these economies too far for they were obliged subsequently to re-enforce the foundations of the street : the floors of the two low level rooms and the alley in front of them were raised, one room was subdivided, and stout buttress walls were added at the east end of both where the weight of the street would have pressed (*Ann. V.*, 32, 33). The date of the street should, I think, be re-considered in the light of these works : the coins of Justinian (527-569) and Justin II (569-574) to which I referred in my previous discussion (*Ann. V*, 52) give the date, it is now suggested, not of the original lay-out but of the repairs. The coins in question were found, one under the street, the other under perfect mosaics west of the street, both in an area that would have been affected when the new buttress walls were built : the latest coin found so far in an area not exposed to this disturbance is a coin of Leo I (457-474) which was found beneath an unbroken floor on the east side : it gives a much earlier *terminus post quem* for the construction of the street.

The Byzantine quarter. Most of the houses, especially in the fields last excavated, have been destroyed to ground level, but the general plan of the quarter is clear. With one exception, the alinement of all our Byzantine constructions was controlled strictly by the new orientation. In f. X the houses were built flush with the street except at the extreme south end where the last fragment of Byzantine building was set back about 6 ft. from the west edge of the paving. The frontage of the houses on the west side was similarly set back all through fs. IX and XI. West of this line it seems that in our fields there were originally eight rows of rooms and at least two alleys, all running at right angles, or near right angles, to the street. Six

rows only are shown on plan 1, but between room 114 in row 4 and room 120 in row 5 there is a gap wide enough to hold two more rows and perhaps a third alley. This gap is occupied by the remains of a Latin souterrain excavated in a hummock of rock which cropped up in the north half of f. XI. Of the two alleys one was stepped, 42 between rows 2 and 3 (Pl. VIII, 1) : the only indication of the second is a door sill in room 202 (f. XIII). The levels changed from room to room as well as from row to row, little attempt having been made to iron out irregularities in the terrain, another instance of Byzantine economy.

On the other side the new orientation influenced building far to the east in fs. V and VII : the longest series of rooms was the so-called house of Eusebius, a row of rooms on slightly different levels stepping up the ridge of Ophel in the same way as the rooms on the west side dropped down towards the valley.¹ In f. IX there was a departure from the new rule, but in f. XI we found a single course of masonry on the edge of the street with an opening for a door, which proved that here again, as in f. X, houses had stood flush with the street (Pl. VII, 2).

In f. IX, on the other hand, rooms 3, 18, 7 and the group 6, 11, 12, 13 are differently alined. However, they are not orientated on Late Roman lines, and it is certain from internal evidence of date and from patches of paving which show that the street was widened opposite room 3 and near 18, that they formed an integral part of the Byzantine quarter. A mosaic inscription in 18 shows that this room was part of some baths which had been restored by a certain Count Eugenius (see p. 93f). These baths are the most imposing establishment in the quarter of which traces have been found. Unfortunately the surface has been heavily denuded in the north, and farther south it has been destroyed by a second souterrain like that on the west side of the street. Walls and connecting links between different sections of the establishment have consequently dis-

¹ *Ann IV*, Pls. i, viii, xii and in the text *passim* from p. 89 onwards. The excavators, who were writing before the discovery of the Byzantine street in f. X, assigned the rooms to a number of different periods, but it is now clear, both from the orientation and the style of the mosaics, that they belong, "Davidic" wall and all, to the street period. To judge from plan and orientation, the "Jebusite" house below might be Herodian or Late Roman.

appeared. Room 3 by virtue of its orientation seems to have belonged to it : traces of a stepped bath have survived south of room 7 (p. 95) and a group of rock-cut constructions some 10 ft. east of this room was certainly an important part. This group consists of a flight of steps, a small platform, a fine stepped bath and a large cistern (6, 12, 13, 11) : the façade of the cistern with its two semi-circular arches is characteristically Byzantine (see Pls. X, 1, 2 and XI, 1). The cistern and the platform which led to it extended beyond our area, and some feature farther east may have caused a departure from the alignment so carefully observed elsewhere : alternatively, since the establishment is described as a restoration, it may have embodied elements which had existed before the street was laid out. In the circumstances this one deviation only serves to emphasize the regularity with which the quarter was planned. This regularity may not be a remarkable achievement, but it is in sharp contrast to the chaotic planlessness which had invaded the commercial centre of Dura already in the third century¹ and was the rule in small Byzantine towns in the Negeb.

None of the houses in fs. IX-XIII were so well preserved as some of those in fs. V and X. The few walls which survived were built of roughly squared stones and heavily plastered. Two rooms, 43 and 114, contained remains of arch piers, and both these rooms showed signs of extensive reconstruction which may have been necessitated by an earthquake. Several mosaic pavements remained : most of them were in the style of those in the house of Eusebius (*Ann. IV*, Pls. ix, x) : one was much more elaborate, an intricate pattern done in tesserae of fourteen different shades, skilfully counterchanged (room 202, p. 91 and Pl. XV 2). To judge from the mosaics and from the remains of the baths of Count Eugenius, the quarter was the home of people of some affluence who liked fine appointments in their houses.

The duration. How long did the quarter flourish ? During the Persian invasion (614) some of the Jerusalem churches were destroyed and more than 2,000 victims were buried near the pool of Siloam, but the city soon recovered, and it was

¹ See *Excavations at Dura-Europos*, Ninth season, *The Bazaar Quarter*, pp. 28-68.

hardly less prosperous in the days of Abd el Melik (685-705) and his successor Welid than it had been under Justinian. The small finds made in our fields suggest that the quarter flourished throughout the eighth century: the coins which were comparatively few in number included ten that were assigned to the Umayyad dynasty (ended 750): wares which in 1927 we regarded as typical of the street level have since been found in a layer "deposited not earlier than the second half of the seventh century, and perhaps even later":¹ the pottery from this stratum is dated by Mr. Iliffe to the eighth-tenth centuries. On general grounds we imagine that Ophel shared the fate of Zion where, as we have seen, traffic through the south-west gate lasted long enough to wear out three sills. Both hills suffered alike when the south wall was again abandoned but it is not certain when this happened: Zion was inside the walls in the ninth century, outside them in the eleventh: Abel conjectures that the Fatimid rulers of the city may have resolved to shorten the line of defence after the raid of John Zimiscès in 975 (*Jérusalem*, 940). Churches on Zion and elsewhere were pulled down to provide material for a new wall on or near the present line and the clean sweep of many buildings on Ophel may be due to the same cause.

Changes in the contours. Although this period was one of great building activity, the levels in our fields on each side of the street embankment were hardly changed at all. On the top of the ridge the mosaics of Eugenius were laid within an inch or two of the rock: so were the floors in fs. XI and XIII. Close to the path the floors of rooms 43 and 114 were even a little lower, in all probability, than the floors of the Late Roman houses. In f. X, on the other hand, and in the fields farther north the oblique line of the street must have meant a progressive narrowing of the valley.

3. *Latin (plan 1)*

The next remains plunge us into a new world. On each side of the street there is a gap in the line of Byzantine buildings: on the east side the breach opens south of the baths of Eugenius, on the west it covers most of f. XI: both gaps are

¹ The layer was found against the north wall of Jerusalem: see Hamilton in *Q.D.A.P.* X, 14.

filled by a series of subterranean chambers orientated on a new axis. The floors of these chambers are some feet lower than the nearest Byzantine floors but the later date of the lower floors is certain: in the east souterrain, part of a Byzantine bath, 13, was shorn away to make room for one of the new chambers: in the other, tell-tale fragments of Byzantine walls were left in the air at both ends of the later construction. The style and conception of these works point to a Latin origin and this is confirmed by their subsequent history, as we shall see in the next section.

The east souterrain was the most impressive monument we found. It comprised at least six rooms—15, 17, 19, 20, 21, 49—and covered an area measuring about 60 ft. from north to south and, in its widest part, nearly as much from east to west (Pls. X-XIII). Room 15, a stairway at the north end, of which only half remains, led through a doorway with rabbeted jambs into 17, a narrow passage room about 6 ft. high with an upper storey. The lower storey of 17 was originally roofed with a segmental arch of masonry, the upper storey was wholly hewn out of the rock and a fragment of the rock roof survives: this room broke into the Byzantine bath 13. A second doorway,¹ with plain jambs, opened into 19, a room some 36 by 20 ft. which formed the centre of the complex. The rock walls of this room rose 12 ft. or more to the level of the roof in the upper story of 17, and monumental doorways led from it into two side-chambers, 20 and 21, both later converted into cisterns and still roofed. A sixth room, 49, which filled the south-west corner of the group, was approached by a second door in the south wall of 21.

The west souterrain was on a smaller scale and less of it has survived (Pl. XIV, 1, 2): it was partly built, partly excavated in an outcrop of rock, and only the rock-cut walls are still in existence. Remains of four rooms—128, 131, 122, 130—are shown on the plan. Of these, 131 and 122 were once roofed with segmental arches like that in the east souterrain; they were dark, poky little chambers which could only have served as store-rooms. Room 130 is still in use as a cistern and could not be properly measured, but it does not seem to have been larger. The fourth room, 128, lay to the south-west

¹ Omitted on plan 1 but visible on Pl. XI, 2, and Pl. XII.

where the ground was shelving away : the south and west walls which must have been built have disappeared : the north and east walls which were cut in rock contained three doors giving access to the other chambers, and this was therefore the principal room in the complex, but how it was entered we cannot be certain.

The style of the stone work in both souterrains is characteristic of the Latin period. Specimens of diagonal dressing could be traced in various places, on the east walls of 17 (Pl. X, 2) and 128 (Pl. XIV, 1), for example, and on the west wall of 122 (Pl. XIV, 2). The masterly curve of the long walls in 17 and 19 (best seen on Pl. XI, 2) could hardly have been attained at any other time : contrast with these the profile of the sides in Hezekiah's tunnel or the side of the Byzantine bath 13. Typical too are the segmental arches, built of relatively small voussoirs springing from prepared beds in the walls : several arch stones were found on the floor of 17 and some springers are in position in 131 and 128 (Pls. XV, 1 and XIV, 1). Lastly, a draft like a narrow ribbon, dressed with a finely toothed tool, which can be seen in many of the Latin buildings in Jerusalem, recurs here in three places at least : it runs round the margins of the voussoirs, again below the springers on the walls and, finally, in the east souterrain round the great doorways leading from 19 into 20 and 21.

The conception is equally characteristic of medieval conditions in the west of Europe. In the little walled cities of the period room was precious and underground vaults of this type were normal appurtenances of the houses. Primarily wine-cellars, store-rooms and larders, they served also as habitations and workshops ; the atmosphere was considered specially good for weaving. French souterrains often had two stories, sometimes built on arches, sometimes excavated in rock : the practice of making them goes back to Merovingian days.¹ In the east, on the other hand, I can find no close parallels in Roman or Byzantine times : a number of small cellars have been found under shops in the bazaar quarter at Dura,² we found two in the Tyropoeon, and underground

¹ See Viollet le Duc, *Dictionnaire*, s. vv. Cave and Maison, or Enlart, *Manuel d'archéologie française*, Part II, 1. Architecture civile, 99 f. (ed. 1929).

² *Excavations at Dura-Europos*, Ninth season, pp. 85, 93, 111, 116, 129.

caves were often converted into stables and kitchens, but the only comparable series of vaults I have seen in these parts lies under an eighteenth century (?) house near the Maronite cathedral at Aleppo ; some of these vaults, which were interconnected, were well finished, others mere caves, some filled with barrels of wine, some with dry stores, others with household junk, and they had served on occasions as refuges for the Christians in the quarter. A colony of European merchants, however, was long settled in Aleppo and here too the idea may have come from the west. The Crusaders, as Lawrence argued in an early essay, brought the principles of their military architecture with them, and in their houses they are the more likely therefore to have preserved their native traditions. Enlart quotes a sentence from Ibn Khallikan about the charming houses, brilliant with marble, which greeted the eyes of Saladin's army and deplores the lack of any domestic architecture in Latin Palestine or Syria.¹ It is a lacuna which these souterrains will not fill and, as every vestige of the superstructures has vanished, we shall still have to look elsewhere, perhaps in Burgundy or Provence, for models of the houses above them.

On Ophel some other rock-cut chambers, which have long been known and variously discussed, may now be brought into the same circle. One of them, south of the last bend in Hezekiah's tunnel, was partially cleared by Guthe in 1881 and re-excavated later with several others by Bliss and Dickie.² Stratigraphic conditions in the area were like those in our fields—cisterns of the same types, both built and rock-cut, stepped "baths," Late Roman and medieval coins, still later intrusive walls. The sections on Bliss' plan show that the rock sides of one chamber rose within two or three feet of the surface and its late date was obvious : one had two stories, and springers of the arch which divided them were still in place : the side walls of another were curved inwards like the long sides in 17 and 19. A complex of rock chambers in field XV which has been described by Garrow Duncan,³ and the

¹ Enlart, *Les monuments des Croisés*, I, pp. 148, 209.

² Guthe in *Z.D.P.V.*, V, 34, 35. Bliss, *op. cit.* 231 f. and pl. xxii.

³ *P.E.F.Q.S.*, 1926, 7-14.

"tombs" excavated by Weill,¹ north of the Bliss group, seem to me to be of the same period.

It would appear from this that under the Latin kings Ophel had become a popular suburb just outside the walls. According to Abel (*Jérusalem*, 967) gardens and mills by Siloam figure in the archives of St. Mary of Josaphat among the abbey properties, and it is natural that the intervening area should be occupied.

It was only for a brief moment, from 1131 to 1174, that the Latin kingdom enjoyed any real prosperity.² The first thirty years or so of the occupation were difficult times and the Crusaders were in even greater straits during the last quarter of the century. It is to the middle years of the twelfth century, therefore, that we are inclined to refer these monuments.

4. *Egyptian (plan 2)*

Jerusalem surrendered to Saladin on 2nd October, 1187 and in the next few weeks there was a wholesale exodus of Franks: those who could ransom themselves marched in three divisions to the coast which was still in the hands of the Crusaders, the poorer sort were led away into Egypt. A period of Egyptian domination which now began lasted with hardly any break until the Turkish conquest in 1516. Many of the new rulers were great builders, and most of the mosques and other religious foundations which line the streets of the old city date from this period. In our fields fourteen coins ranging from the end of the twelfth century to the fifteenth were identified:³ two finds of glazed potsherds which are assigned by

¹ *La cité de David*, 157 f. Weill's "tomb" has been compared by A. Barrois with the "réseau de salles incontestablement plus imposantes" found by us, (*R.B.*, 1929 316). It was mixed up in the same way with a stepped bath and later quarrying, but the order of events was not so clear as in our field. The baths which W. reasonably connects with the establishment of Theodotus, probably came first in time, and the "tombs" were intercalated among the baths not *vice versa*. This interpretation eliminates the structural difficulties which have led W. to posit a change of plan on the part of the makers of the "tomb" (165). The quarrying of this area, like that above our 13 in f. IX, probably dates from Mamluk times.

² Enlart, *Les monuments des Croisés*, I, 10. The only Latin coin we found in these fields was one of Amalric I (1162-73), found in f. X (*Ann.* V, 120).

³ The earliest are coins of Az-Zahir Ghazi (1186-1210), Kay-Khusru b. Qilij Arslan (1192-99), Al Mansur Muhammad b. Othman (1198-99) and a coin of one of the Ayyubids.

Dr. Mayer to the thirteenth century were made in places which are significant stratigraphically, and two arches in a style which, according to the same authority, is earlier than Beybars (1260-1277) are still standing above cisterns.

After the complete destruction of the Frankish houses¹ new buildings were erected above the souterrains, and the souterrains themselves put to other uses. In f. IX remains of three new rooms (16, 22, 45 on plan 2) were found north and west of the souterrain: the east wall of room 16 was carried down to rock through the Latin rooms 15 and 17, thus putting out of action the original entrance to the underground chambers beyond: the walls of rooms 22 and 45 were built on what appear to be Byzantine foundations. In the rest of the souterrain, various changes were made in 19 (see p. 102) and rooms 20, 21, 49 were converted into cisterns: between 19 and 21 one of the new arches was built: in 49 new walls and transverse arches were erected: the depth of 21 and 49 was almost doubled. One of the collections of thirteenth-century glazed ware which was found in the blocked portion of 15 west of the new wall gives an approximate date for these changes. Jerusalem had become a city of Orientals, Muslim, Christian or Jewish, and in their economy there was no sense in the cellars and store-rooms of the Franks: of water, on the other hand, they could not have too much. The new occupation lasted some time for there were two floors in room 45 and two coins of Bahri Mamluks were found on the floor of 22.

In f. XI round about the other souterrain two phases in this period can be distinguished: in both the level of occupation was below what we must assume to have been the ground level in the Latin and Byzantine periods. The first phase is represented by 113 and 106, an area paved with blocks apparently taken off the street, and farther west by 115, a cistern, built against the southernmost portion of the Hellenistic wall,

¹ It is possible that the houses were demolished in the hectic weeks between the battle of Hattin (4th July) and Saladin's arrival before the walls of Jerusalem (21st September). The Crusaders made feverish efforts to strengthen the city: Bir Ayub and other watering places were filled in, the chapel of St. Stephen outside the north wall was pulled down for fear it might serve the enemy as a strong point, and solid houses elsewhere may have been sacrificed (Abel, *op. cit.* 974).

with an arch like that in front of 21 : the large paving stones, it will be seen, overlies the Latin room 128. The second phase comprises a series of small rooms 101, 102, 103, 105 orientated on the same lines as a long wall built above the paved area of the first phase and a room, 24, which was built above the street and yielded a coin of Muhammad b. Hajji (1361-1363). Of the smaller rooms in the Latin souterrain, 130 had been deepened and turned into a cistern which is still in use : in 131 more of the thirteenth-century glazed ware was found.

Walls of the rooms of the second phase were still standing to a height of three or four feet and in two of them there were fragments of stone paving. They resemble those of the Byzantine-Arab period : mosaic floors have gone out of fashion, but the same building tradition persists—the walls were fairly solid and heavily plastered in the old style, the corners were not thickened to carry vaulted roofs, cisterns were still roofed with flat slabs laid across transverse arches. The masons, I suppose, were local Christians like those of whom Doughty speaks in the last century building *kellas* on the road of the Mecca pilgrimage.

Little change had taken place in the building levels since the Byzantine period : in a few places they had been lowered. This tallies with the observation of Felix Fabri, a garrulous German pilgrim who visited Jerusalem about 1480-83 : by the pool of Siloam he thought he could still recognize remains of Christian buildings—" it would be an easy task, he writes, to restore the ruins of this holy fountain, but no one touches them or puts his hand to them, and so the place grows day by day more ruinous " (ed. *Pal. Pilgrims Texts Soc.*, I, 529). These are the ruins round which at the end of the last century Bliss had to tunnel laboriously under debris from twelve to twenty-two feet deep. In the fifteenth century the filling of the lower valley had hardly started.

5. *Turkish* (plan 2)

In 1575, less than a hundred years after Fabri's visit, another German, a Protestant doctor named Lionhart Rauwolff, came to the " old and ruined Jerusalem where there is no joy nor hopes to get anything, as is in the Heavenly

one."¹ The scene painted by Rauwolff is far more reminiscent of modern conditions. Inside the city, the Tyropoeon is "now filled up and made even with the top so that hereabouts is hardly any depth or unevenness to be seen": through the Dung gate "the waters carried out all the soil into the valley of Josaphat (i.e., on the line of the present sewer); and about this river is still to this day a great stink." Outside the walls the Tyropoeon "hath been since the desolation so filled up, that no depth at all appeared in our days: but only without the fountain gate by the fountain Siloah."

A picture of the valley as it looked in 1586 was made by Giovanni Zuallard, a Fleming otherwise called Johann Schwallart. Zuallard's picture was published at Rome after it had been "improved" by experts there,² and it was reproduced by a number of later travellers, Fürer, Cotovicus, Sandys. The illustration on Pl. XVII is taken from an early edition of the travels of the last named,³ who had a new engraving made which differs only in immaterial details from the Roman publication.

The ridge of Ophel, much foreshortened, is in the foreground: the roads round it follow the lines of the modern paths: that from the Dung gate, letter E (Port Esquiline is an obvious slip for Port Sterquiline which is correctly printed elsewhere) to G, the mulberry tree "where the Oak Rogel stood," is the path which formed the west boundary of our fields in 1928: the path leading off it to I, the fountain of the blessed virgin, is on the line of a path now dividing fields V and VII but is probably meant for the broader road near the walls. The surface, however, of the ground resembles neither the modern surface nor the medieval: it represents an intermediate stage. At this time Ophel seems to have been covered with a series of mounds rather like the rubbish heaps which tower outside the walls of Cairo. As yet obviously it had not

¹ My quotations are made from an English translation of Rauwolff's account in Ray's *Collection of Curious Travels and Voyages*, 1738 (2nd ed.). Tobler (xlv) praises R's accuracy.

² *Il divotissimo viaggio di Gerusalemme* by Giovanni Zuallardo, Rome, 1587 p. 139.

³ *A relation of a journey begun An : Dom : 1610*, of which several editions were published in the seventeenth century. Sandys, son of an Archbishop of York, spent some days at Jerusalem in the spring of 1611.

been terraced for cultivation and was lying "waste and unhusbanded" like the Mount of Olives "upbraiding the barbarous with his neglected pregnancy" (Sandys), though a couple of olive trees near the walls and others dotted about on Zion may stand for regular olive gardens: near the walls more plantations are shown on a drawing by Le Bruyn dated 1681 (Abel, *Jérusalem*, 1001).

A further stage in the transformation of this region must have taken place before the latest walls which we found below the surface were built. They belong to some houses which were alined on the modern footpath when Zuallard's mounds had been flattened out but the ground level was a little lower than it is to-day. In f. IX remains of these walls (14, 37, 34, 30) reached within two or three feet of the surface, but the bottom of the lowest foundation was 9 ft. above the Byzantine floor level. Farther south the filling proceeded more slowly: in f. XIII the west wall of 203 which is also alined on the path rested on Byzantine mosaics. Provisionally this stage might be assigned to the eighteenth century.

More evidence about the date of the present terrace walls which represent the latest stage may be forthcoming from archives in Jerusalem or books of travel to which I have not had access. In 1838 Robinson describes the ground as "tilled and planted with olives and other fruit trees," and the present field boundaries correspond closely with those on the Ordnance plan made by Sir Charles Wilson in 1864-5. Pending further discoveries, I am disposed to think that the contours have not changed much during the last hundred years.

PART II

1. *Late Roman (plan 1)*

The fragmentary constructions of this period run roughly from north to south or from east to west: they follow, like the older buildings, the natural lines of the site.

¹ Ed. 1860, I, 267 which reproduces the text of a journey made in 1838. Robinson's account appears to be contradicted by a picture made by W. Tipping in 1842 and published in 1851 in Traill's *Josephus* (2,206) which shows neither separate fields nor cultivation, but Tipping, though he drew walls and buildings very carefully, was sketchy in other respects and shows only one path running through this area.

To begin with those along the west edge of the area :

Drain E. This runs across the middle of field IX from east to west. It was first seen by the S.E. corner of room 18, the bottom on L. 63.8 ft., some 3 ft. below rock surface : it passed under the Byzantine street and was last seen above the line of the Hellenistic wall nearly 80 ft. from its start, having dropped more than 5 ft. in level. Drain A took off it near the S.E. corner of the old double cistern and ran south for about 100 ft. to the middle of field XI. Both drains underlay the Byzantine drains and proved that after the destruction of the Hellenistic wall this part of Ophel was served by drains falling towards the Tyropoeon.

47. The walls of a cistern coated with grey plaster (Pl. VII, 1). The floor of the cistern was carried down through the Hellenistic wall to rock on L. 47.05 ft. In the Byzantine period the east wall of room 43 cut the cistern in two : east of 43 the cistern wall stood 11 ft. high above the floor, but inside the walls had been reduced by 2 ft. or more : it follows that the Byzantine floor was rather lower than the floor of the house which had been served by the cistern. In this respect and in general appearance the cistern reminded us of No. 46 in field X (*Annual* V, 31). North and east of this cistern there were fragments of walls we could not connect with any other building.

107. Fragmentary remains of a second cistern of the same type but sunk deeper into the rock below the Hellenistic wall, bottom on L. 44.9 ft. There were many traces of long continued occupation in this area : in a deep hole to the south, No. 112, Hebrew potsherds and lamps were found mixed with Roman and later sherds, but the earliest extant walls were medieval, built in late Mamluk days. The highest side of this cistern was not more than 4 ft. high and the floor of the house it served must have been on a higher level than several of its successors.

Turning farther east to the middle of field IX :

23. Remains of a double stepped " bath " south of drain E. The steps descended from east to west, the sides were rendered with pink plaster and a lamp niche was cut in the rock to north. The N. side lies under the Byzantine room 18 and the S.W. corner under a mosaic patch 44 : the irregular-

ities in the plan may be partly due to damage caused in the Byzantine period.

133, 129, 132. Three more rock-cut baths or vats, all orientated roughly on the same axis as drain A and other old rock workings. 129 and 132 were sealed by Byzantine constructions. A patch of plain white mosaics which may have belonged to the same house as 129 was seen reaching under the street: similar finds under one of the Zion streets are recorded by Bliss and Dickie (*op. cit.* 79).

In field XIII extensive rock workings, including a flight of steps, were found below the Byzantine occupation level, also many small antiquities, potsherds and stone vase fragments of Herodian period among them, but the area excavated was too small to justify conclusions about them.

2. *Byzantine and Arab (plan 1)*

The street found in fs. IX and XI is plainly a continuation of that in f. X. Direction and width are the same: the buildings on both sides are of the same period: it is paved in the same way with heavy blocks which vary in size¹ (Pl.VII, 2). But there are differences between the two sections: in the lower fields the centre of the street lies about 5 ft. farther west, and, except on the east side in field XI, the houses are not built flush with the street. The latter difference may be explained by the difference in the terrain: in f. X the street ran down the middle of a broad artificial embankment; in f. IX the embankment hardly extended beyond the width of the street and rows of buildings dropped below it on one side and rose above it on the other. To account for the former difference we must await evidence from other sections of the street. The gradient was about 1 in 21: the level of the most northerly fragment of paving in f. IX is 68 ft., about the middle of f. XI the level was 61.2 ft. In later days large patches of the paving were lifted and rooms (14, 37, 35, 24 on plan 2) were built above the line of the street: the earliest destruction appears to date from the Mamluks and sections of the street *may* have continued in use during the Latin period, though the houses were differently orientated.

¹ The late Government Geologist, Dr. Blake told us that the stones were not *mizzi*, as we had thought, but a very hard *maliki*.

The west side. On the valley side of the street rooms in six out of a probable eight rows and two lanes or alleys were found. The description runs from north to south.

Row 1

46. This room like the next extended under the footpath and only the S.E. corner could be cleared : it is visible in Pl. VIII, 1. The floor was preserved, a pavement in white mosaics decorated with widely spaced florets : the rough walling round it is of later date. The level of the floor was 59.8 ft., about 6 ft. below the level of the street at this point.

Row 2

43. This room, built against the S. wall of 46, presumably was part of the same house : see Pl. VII, 1. Both rooms were built on debris left after the destruction of the Late Roman quarter, drain E. running under 46 and cistern 47 being cut in two by the E. wall of 43. The foundations were carried down to the Hellenistic wall or lower, the foundations of the arch piers in the N. and S. walls projecting the whole way down : in f. X similarly, where the debris was loose, Byzantine foundations were carried down very deep. None the less, the room had to be rebuilt before it was finally abandoned : the faces of the N. and S. walls were then brought flush with the arch piers. Arab coins were found in the debris in 47. If the original floor, of which no trace remained, was level with the bottom of the ashlar work in the piers, it was about 4 ft. lower than the floor of 46 and some 9 ft. lower than the street. The height of the street above these rooms may be one reason why the frontage of all the houses in these rows was set back from 6 ft. to 7 ft. : it would give space for steps to be built down to the doors.

Alley

42. It may have been to reduce the steepness of the descent between rows 2 and 3 that this alley and the walls on either side were not quite at right angles to the street. Five substantial steps were still in place (Pl. VIII, 1), steps so superior in quality to the stonework of the period that they came probably, as Père Abel suggested, from the Roman street in the valley. The levels of the steps were 61.2 ft., 60.4 ft., 59.5 ft., 58.5 ft., 57.4 ft. : three or four more would have been needed to reach

the street and the same number to reach the level of the sill in 114.

Row 3

40. The original floor, the sill of the doorway in the W. wall, and the whole of the S. wall, which was probably in line with the N. wall of 114, have disappeared: the paving stones which exist (L. 53.2 ft.) may be as late as the Mamluk period: only the foundations and plan are Byzantine. The debris under the pavement was very different from the mixed accumulations under 43 and 46: it consisted of a packing of loose stones like that on the top of the debris of destruction in f. X but on a much reduced scale (*Ann.* V, 31).

41. It is uncertain whether this was another room or an open court. No trace of paving was found. The lower debris was like that in 40, a stratum two or three feet deep of loose stones, spread in this room over the remains of the Hellenistic wall.

Row 4

114. A view of the N.W. half of this room, taken after it had been cleared to the foundations, is shown on Pl. IX, 1. The Hellenistic wall ran under it: the sill and two rabbeted stones on each side were in place in the doorway leading into 41 (level of sill 53.4 ft.): in the W. wall above the foundations three courses of roughly dressed masonry and the lower courses of two arch piers survived: in the east wall the corresponding piers were visible, but this wall had been rebuilt flush with them and a rough flight of steps added in the N.E. corner (Pl. VIII, 1). The S. wall of which nothing remains must have crossed the L.R. cistern 107 and abutted on the rock where room 131 was later made. Nothing remains either of the room east of 114 to which the steps in the N.E. corner led: the treads of these steps were on levels 56.3 ft., 55.2 ft., 54.3 ft., 53.3 ft., and beyond them the rock rises still higher: to judge from the height of the unworked rock between 114 and the street, the floor of the vanished room was not much lower than the mosaics in 46.

Immediately south we come to a space long enough to con-

¹ See also *P.E.F.Q.S.*, July, 1929 pl., II after p. 166 for another view where both flights of steps are called Byzantine, perhaps questionably.

tain two more rooms and perhaps another lane : it is now filled with the remains of a Latin souterrain. The only traces of Byzantine building in this stretch is the broken end of a wall in continuation of the E. wall of room 120 : this fragment, however, is good evidence for the prior existence of Byzantine rooms above the rock into which the Latins cut.

Row 5, originally 7

120. This room was built above an earlier stepped construction 129, and rock workings in connection with it rose above L. 58 ft. : the highest Byzantine level on the N. wall was 60.4 ft. Two later rooms were built on it (plan 2, 120 and 117) and there was no trace of the Byzantine floor.

124. Some patches of mosaic which are not shown on the plan were the only evidence for the second room in this row : the rock rose to L. 57.5 ft.

110. The third room in this row stood on lower ground in the S.W. corner of f. XI : the floor was on L. 51.6 ft., more than 6 ft. lower than the last. Later building (plan 2, S. of 103) had destroyed the walls N. and E., but the mosaic pavement (Pl. VIII, 2) was well preserved under a layer of ashes and, though the high terrace wall beyond prevented us from examining the S. half of the room, the pattern of the whole pavement was plain : it was an elaborated version of some of the patterns in the house of Eusebius (*Ann.* IV, pl. ix). The border was composed of crowsteps between lines :¹ the central field was covered with a diaper of diamonds and florets (near F33)¹ which was crossed down the middle from N. to S. by a row of indented squares with a crosswise arrangement of florets in the centre : the surround was decorated with more florets.

Row 6, originally 8

123. Earlier rock workings, 132, lay under this room and a later wall, 119, above, breaking through the mosaics. The pavement was decorated with rows of elongated florets (near Avi-Yonah F 30 but with a triangular foot like F3, and surrounded by a plain two-lined border. The level of the pavement, on which the later wall rested directly, was 58.1 ft.

¹ A 4 in the table of mosaic patterns which accompanies Avi-Yonah's catalogue of pavements in *Q.D.A.P.*, II, 138-141.

125. This room extended under the terrace wall like room 110 and only some mosaics in the N.E. corner were seen : the level was 57.3 ft.

201. This was probably the fourth room in the row : only the S. and W. walls were seen.

202. This room was more instructive, it gave us a second door sill and the finest mosaic floor on the site. The door sill (L. 55.1 ft.), buried under a later wall in which some of the old squared stones were re-used (Pl. IX, 2), was at the E. end of the S. wall, and the door must have opened on a side street or lane. The levels of the floors in this row—the mosaics in 202 (L. 54.4 ft.) are nearly 4 ft. below those in 123 and 3 ft. above those in 209, the next room to the south—suggest that this lane was stepped like 42.

The patterns on the pavement are less remarkable than the variety of colours : we distinguished fourteen different colours or shades (Pl. XV, 2). The one pattern which seems new is the cedar tree in the smaller square panel : it is like the heraldic device of the Lebanon republic. The circular mat pattern in the corner (Avi-Yonah, I 10) is a design which occurs elsewhere, as in this room, in front of a door. The rosette and interlaced bands of the main panel are both, in various forms, very popular but it is rare to find such a range of colours counterchanged with so few slips. Though the general effect may be heavy and baroque, perhaps typically Palestinian, the pavement is the work of an accomplished craftsman and deserves preservation.¹ I shrink from hazarding a date while there is still a possibility that coins may be found under it : in some respects it reminds me of a well known mosaic on the Mount of Olives² but the date of this is uncertain and good mosaic floors were being laid in Palestine as late as the eighth century.

The colours employed are—black, white, red, pink, orange, light yellow, dull yellow, beige, grey, green, yellow green, purple, dark purple, dark grey, brown.

The ground is white.

¹ It was late in December when we found the floor and the weather was wet, making it impossible to lift the mosaics at the moment : a painting was made by Mr. Avigad, matting was laid over the floor and it was reburied.

² See Avi-Yonah, *Q.D.A.P.*, II, p. 168, No. 118.

The surround. The indented squares have black tesserae outside, red inside, white in centre : the florets—lower part black, upper red.

The main panel. The border—two lines of black. The twelve interlaced bands are all edged with black : three varieties alternate—1. green, green, white ; 2. red, pink, white ; 3. orange, yellow, white. The twelve kite-shaped shields formed by the interlacements are (starting from N.E. and going clockwise)—1 and 7, brown and red with a pink rib, 2 and 8, beige and purple with red rib, 3 and 9, red and orange with green rib, 4 and 10, red and purple with dark purple rib, 5 and 11, orange and beige with beige rib, 6, dark grey and pink with green rib and 12,—the only irregularity—a repetition of 3 and 9. The rosette has eight petals with four varieties regularly opposed. The double-bladed axes in the corners are all different.

The cedar tree panel. The ground round the tree is grey-green, the trunk and lower line of branches yellow-green, the upper line of branches yellow. The interlaced bands four varieties : purple dominates in N.E. and S.W. corners, green in S.E. and N.W., red and pink on E. and W. sides, orange and yellow on N. and S. sides.

Circular mat : colours, red, black, dark green, purple, yellow-green, white, pink and orange.

209. Only a fragment of the original pavement in plain white mosaics (L.51.4ft.) survived. Under it a deep cistern was cut in the rock, the bottom being on L.35ft., and connected with this cistern was a well head built in later days in the north half of the room above the Byzantine floor level : the well head no doubt served the house set out on the alignment of the footpath of which fragments are shown in plan 2.

The east side. In f.XI the area excavated did not extend east of the street but on the edge of the paving there was the bottom course of a building in the same style as the Byzantine walls. This line of masonry reached into f. IX and continued South as far as the last part of the street which we found, a distance of about 45 ft. : a break in the masonry opposite the N. Wall of 120 seems to indicate a doorway. The remains are obviously such as we should expect if the Byzantine rooms had been built flush with the street, here as if f. X.

In f. IX, as we have already said, the Byzantine buildings do not abut on the street nor are they orientated exactly on the same lines as the other rooms in the quarter. The rooms we have first to consider are those numbered 3, 18, 7, 44 and 45.

3. A large room with a plastered floor on L. 73.4 ft. with traces of smaller constructions adjoining it. The top of the ridge in this area has been heavily denuded, the rock is close to the surface and the remains very fragmentary: room 3 is orientated like 18, and 18 was part of an important foundation which may well have extended as far N. as 3, but, if this was the case, the intermediate links have been lost. A small patch of paving farther W. beyond the line of the street appears to show that the street was widened in this direction.

18. Another patch of paving indicates a similar widening of the street W. of this room. The walls of the room have disappeared but the mosaic floor, though broken in places by later building, was in fairly good condition: this was due to the exceptional length of the tesserae which ran from 30 to 40 mm. into a bed of good lime laid close to the rock, except where this had been cut into in L.R. times or earlier when drain E. and room 23 were excavated. The floor was on L. 67.8 ft., about 2 ft. higher than the street at this point. The inscription of Count Eugenius, which is now in the Palestine Archaeological Museum, was in the middle of the room (Pl. XVI): a triple border composed of a plain line, a crowstep and a plait, ran round a field covered by a crisscross in red tesserae on a white ground with diamonds in black tesserae, framed by red ones, inside each square: the inscription had a plain double border and lines under the letters, both black. The red and white tesserae were of local mizzi, the black ones of a bituminous rock from Nebi Musa.¹

¹ The inscription was first published in *P.E.F.Q.S.*, 1929, pl. IV, pp. 15, 16. See also Avi-Yonah in *Q.D.A.P.*, II, 175, No. 146: the patterns of the border are Nos. A1, A5, B6 in his table, the criss-cross H1.

The inscription (Pl. XVI) runs as follows :

Text.

CY ME
ANANEWACAC
ΨΗΦΙΔΙ ΚΟCΜΗCΑC
ΕΝ ΥΓΙΑ ΛΟΥCΑΜΕΝΟC
ΑΠΟΑΥCΙΑC ΤΟΝ CΟΝ
ΚΤΙ, ΚΥΡ, ΚΟΜ, ΕΥΓΕΝΙΕ
ΜΕ, ΤΟΝ CΕ (ΑΥΤΟΥ)

Line 5 ΑΠΟΑΥCΙΑC for ΑΠΟΛΑΥCΕΙΑC (*aorist optative*)

Line 5 ΤΟΝ CΟΝ for ΤΩΝ CΩΝ

Line 6 = ΚΤΙ[CΜΑΤΩΝ] ΚΥΡ[ΙΕ] ΚΟΜ[ΕC]

Line 7 ΜΕ, = ΜΕΤΑ ΤΟΝ for ΤΩΝ

Translation.

“O thou who hast restored me and decorated me with mosaics, mayest thou, after having bathed in good health, enjoy thy foundations with thy family, O Lord Count Eugenius.”

The Lord Count Eugenius who is thus addressed by the house or room which he had restored and decorated with mosaics may perhaps be identified with a Count Eugenius who defeated Arabs on the Euphrates frontier in 496, according to a passage in Theophanes¹ to which Père Abel drew my attention, but there are difficulties in the way : according to our field records a coin of Justinian, minted at Alexandria and hardly earlier than 558,² was found under the mosaics and I cannot say whether the coin was found in a position it might not have reached when the walls were broken down. Also, the underlining of the inscription suggests a late date : only two certain examples of such underlining are known to me, (I) the epitaph of Anatolia, a sister of the Emperor Maurice who

¹ *Chronicle of Theophanes* in Migne, P.G., cviii, col. 337.

² *Imperial Byzantine Coins in the British Museum*, I, 81.

escaped to Jerusalem after the massacre of her family in 602, an inscription in letters with ornamental serifs,¹ and (2) a late but undated mosaic at Mukhmas with letters of a third type.² In the circumstances we must leave the identification of this Eugenius unsettled: Eugenius was a common name and Counts were numerous.

7. Leading out of 18 is a small square room which has lost both walls and pavement. Two steps or benches (Ls. 70.1 ft. and 69.2 ft.) cut in the scarped rock at the E. end were plastered: the level of the rock in front of them is 67.9 ft. and was once presumably covered with a pavement of some kind: two blocks of rock, left standing about 18 in. high on the W. side may have carried supports of a door between this room and 18.

44, 45. S. of the W. end of 18 are the remains of two other rooms which belonged probably to the same foundation. 44 is a patch of plain white mosaics which stretched over the S.W. corner of 23: the level was 67.2 ft., a few inches lower than the mosaics in 18. 45 was a room orientated like 18, the foundations of which were reused for two later rooms, both apparently dating from the Egyptian period.

Two baths can be identified. Some 6 ft. S. of room 7 parts of four steps have been spared by later constructions: they descend from W. to E., the top surviving fragment on L. 58.9 ft., the lowest on L. 55.6 ft. The second bath which is comparatively well preserved is part of an interesting group, Nos. 6, 11, 12 and 13.

6. A broken flight of steps cut in the rock about 10 ft. E. of room 7. The steps, visible on Pl. X 1, descend from W. to E.: the top step of which very little had been left by later quarrying was on L. 70 ft., the lowest one on L. 65: of the room or passage which must have led from 7 to the steps not a trace remains.

12. At the bottom of the steps there was a landing which extended east beyond our area. The level of the landing is 63.3 ft.: it was, no doubt, tunnelled under the rock which still rises nearly 10 ft. above it: the ladder in the middle of

¹ Published by Abel, *Jérusalem*, 921.

² See Hamilton in *Q.D.A.P.*, I, pl. xxxix. Another inscription with lines under the letters, published by Avi-Yonah in *Q.D.A.P.*, III, pl. xvi, is probably modern.

Pl. X, 2 rests on this landing and some of the steps in 6 can be seen again to the left.¹ This plate gives a good idea of the surface quarrying which ruined the original lay-out of the area : the rock roof of the landing probably disappeared in the process. The landing opened on the N. side into a cistern, 11, and on the W. side into a bath, 13 : where it led on the east we do not know.

11. The façade of the cistern had two semicircular arches (Pl. X, 1) : the column in the middle has been destroyed. Inside, the floor dropped in nine widening steps, the bottom one more than 6m. below the roof. Other stepped cisterns of a somewhat similar type but on a smaller scale were found in f. V (*Ann.* IV, Pl. XIV) : the Byzantine date of our cistern is corroborated by the semicircular arches : in the L.R. period they would have been replaced by an horizontal entablature. The sides of cistern 11 were coated with grey plaster, and the interior was packed with the mixed debris characteristic of the site : near the top, masses of stones about the size of a man's fist, picked off the fields to prepare them for cultivation, among the stones a Rhodian jar-handle ; lower down, large, stones, quantities of late pottery, Roman sherds and traces of a rough wall ; near the bottom a mill stone.²

13. The bath on the W. side of 12 is shown on Pls. X, 2, and XI, 1. In the S.E. corner the rock still rises to L.71.1 ft., and the original height of the interior, the form of the door and the width of the steps can be best seen on Pl. X, 2 : this view, taken 21st October, 1928, shows how the steps were reduced in width when room 17 was subsequently excavated to the south and a wall was built on the edge of the reduced steps to carry the arch over the lower storey of 17 : the view on Pl. XI, 1 was taken on 5th November after the wall was removed. The top step was on L.62 ft., the fourth on L.59.2 ft., the bottom one on L.58 ft. Fragments of plaster were still in place and the execution fairly good.

This group of rooms, 6, 12, 13, 11, and the broken steps

¹ The deep cutting on the left of the plate which is half filled with stones ran for about 15 ft. eastwards from the S.E. corner of 7 : it was about 1 ft. wide and 2.5 ft. to 3.5 ft. deep and looks like an unfinished drain.

² A rude burrow tunnelled into the rock W. of the entrance is shown on the plan : it can have had nothing to do with the Byzantine construction.

south of 7 are part of the establishment to which the inscription in 18 refers but the links between them are missing and we cannot reconstruct the plan or the history of the foundation. Orientation which has been a shining light hitherto plays tricks with us here : room 18 is not properly alined on the street, nor is the group with the bath alined on 18.¹ The renewal or restoration which is mentioned in the inscription may be interpreted in too many ways to help us : it might be argued that it applies only to room 18 like the paving mentioned in the next line : others may adduce it as evidence for the priority of the two baths in question : others may point to the still earlier remains in 23. These matters must be left in suspense.

3. *Latin (plan 1)*

It was suggested in Part I that much of the building material in the Byzantine-Arab quarter may have been carried away when the south wall of the city was rebuilt on its present line. When the Crusaders re-occupied the site nearly two centuries later little trace, therefore, of the earlier buildings may have survived. They ignored the line of the street if it was still visible, and in planning the east souterrain they seem to have been ignorant of the existence of the Byzantine baths : their work was so carefully executed that it is hardly conceivable that they would not have made the small changes necessary to avoid bath 13 if they had known about it. I imagine that under a light covering of debris the rock roofs over 6, 12 and 13 were still unbroken like the rock roof over 11 to-day, and that an architect in the twelfth century might feel reasonably confident of the solidity of the rock farther south : the bath, after all, had been made some six centuries earlier, and if any native remembered its existence he would probably have kept his knowledge to himself. Here and on the west side of the street all the Crusaders would have seen would have been the foundations of the older superstructures, and on the west side this is all there was.

The east souterrain comprised at least six chambers, numbered 15, 17, 19, 20, 21, and 49 on plan 1. Of these rooms Nos. 15 and 17 were blocked up early in the next period : the

¹ It is an accident presumably that the west side of the cistern 11 is parallel to the short sides of 18 and 7.

other four were altered in various ways and made to serve new purposes : in this section I am concerned only with the souterrain as originally planned.

15. This room contained the flight of stairs which led into the souterrain from the ground floor. The north side of the room, with a deep gash on the face of the rock, is seen on the extreme right of Pl. XIII, 1, high up : below it are three steps, a small recess between the steps and the south wall, the sill and rabbeted jamb of a doorway leading into room 17, on the floor of which a workman is standing : below the steps seen in Pl. XIII, 1 there was a landing (visible in Pl. X, 2) and three more steps leading to the doorway. The floor was on L.55. 5 ft. the top step surviving on L.62, and ground level must have been near the top of the north wall, about L.70 : it is plain therefore that only half the original stairway remains. Entrance from ground level was perhaps through a trap door as is commonly the case in French souterrains. The gash in the rock may have been made to house the ends of the roof beams above the upper flight.

17. A small room about 7 ft. by 20 ft. with an upper story, the long axis from east to west. In the S. wall a doorway with plain unrabbeted jambs led into 19 (Pl. XI, 2 and XII). The top of the doorway was just below the spring of the stone arch which roofed the lower story : the segmental curve of the arch can be traced on the W. wall (Pl. XIII, 1), the bed of the springers on the south (Pl. X, 2). The edge of the bed was smoothed with a finely toothed chisel and some voussoirs lying on the floor had a margin tooled in the same way. On the N. side the masons broke into the Byzantine bath (Pl. X, 2) : this, as I have suggested, can hardly have been anticipated, the men however stuck to their plan, pared away the ends of the Byzantine steps as far east as was originally planned, and built a new wall, of which a fragment is visible in our plate, to support the N. side of the arch. The lower story was not more than 6.5 ft. high and served primarily as a passage to 19. The upper story cannot have been higher : the whole of the E. end is preserved and a large part of the S. wall which curves inwards as it rises (Pl. X, 2) :¹ the roof which was cut in the rock,

¹ Mr. Diskin, an expert in the local stone, told us that the patches on the walls of this room and others which show black on our plates were due to a mixture of *nari* in the *maliki*.

here rising to L.71, 5 ft., was flat. This upper story could have been entered from a landing halfway up the stairs in 15.

19. This, the central room in the souterrain, measured about 36 ft. by 20 ft., the long axis being from N. to S. The N. and S. walls were perpendicular, the long walls had a sweeping curve inwards and upwards like those in 17, but the curve started lower (Pls. XI, 2 and XII). In the N. half of the room the walls are still from 9 ft. to 12 ft. high : in the S. half they have been reduced and rebuilt in masonry except in the S.W. corner where the rock still rises to L.68.1 ft. and a trace of the original roof may survive. Two great doorways, each some 10 ft wide, opened off the long sides leading into 20 and 21 respectively : the rock round them was dressed smooth like the rock below the springers in 17.

20. Now a cistern stretching east beyond our area. The doorway was blocked with a steep bank of stone visible on Pl. XII, and we could not obtain entrance. It is possible that it opens into a second room to the south corresponding to room 49 on the W. side.

21. Also once a cistern and, though it is no longer in use, the owner objected to our widening a small hole we made in the blockage in front of the doorway. The sides were coated with hard pink cement. A second fine doorway in the S. wall, the upper of the two openings on Pl. XII, led into room 49.

49. This room too had been converted into a cistern but, as the roof had collapsed and it was not in use, we could clear it completely. Before the extensive operations undertaken when it was turned into a cistern it seems to have been a long cavernous room stretching a little farther south than 19 : at that time it may have had a rock roof : at the S. it was slightly curved on plan. The rock at the south rose to L.58. 6 ft. and the space between it and the later S. wall, made when the cistern was constructed, was rendered with a yellow plaster we saw nowhere else. The floor level at this end was 53.1 ft., that of the sill in the original doorway from 21 was about 54ft., and as the level of the original floor in 19 was about 55 ft., it looks as if this room had been some two feet lower than the rest of the souterrain, probably because the level of the rock in which it was tunnelled was dropping both to south and west.

The west souterrain which lay in f. XI comprised four

rooms, 128, 131, 122, 130. The rock here was lower and the rooms were not tunnelled under it like most of those in the east souterrain : all seem to have had masonry roofs. The street if it was still in existence, which is very doubtful, ran obliquely between the two.

128. This room in the S.W. corner of the complex gave access to the others. The dimensions are uncertain as the lines of the S. and W. walls were not identified : it was probably about 10 ft. from E. to W. and twice as long from N. to S. The N. and E. walls were hewn in the rock : in the N. wall a doorway with plain jambs gave into 131 : in the E. wall (Pl. XIV, 1) similar openings gave into 122 and 130, the latter now blocked. The original entrance to the souterrain probably lay in the destroyed area south or west. In the E. wall on each side of the opening into 122 the rock had been prepared with the same marginal dressing as in 17 for the spring of an arch and three voussoirs are in place N. of the doorway. The height of the room cannot have been more than about 6 ft. : the floor was on L.50 ft.

131. All four walls were hewn in the rock but the W. wall had been partly rebuilt in masonry. The floor was on L.50.2 ft. but part of it had been quarried away to a depth of some 3 ft. in an attempt perhaps to make a cistern. Six voussoirs of an arched roof like that in 128 were still in place on the E. side (Pl. XV, 1), three on the W. and the room was about the same height. The S. wall where the rock rises to L.62.5 ft. must have run up into the room above, which may have been on ground level : it is actually a few inches higher than the street at this point and suggests that the souterrain was excavated in a sort of hummock on the side of the valley. Several fragments of thirteenth-century glazed ware which were found in the debris may date from the repairs in the W. wall or the quarrying in the floor.

122. Another dark, cramped room of the same type, cut in the rock with a niche or cupboard in the S.E. corner (Pl. XIV, 2). The floor was on L.50.5 ft., the spring of the arch on L.55.4 ft. The hole close to the entrance was about a foot deep : circular holes similarly placed were found by Bliss and Dickie in two chambers (*op. cit.* 232).

130. This room we could not examine as it is still in use as

a cistern (see below p. 103): the blocked door out of 128 is shown on Pl. XIV, 1. It is now spanned by a single arch from east to west. The old stepped construction to the east, 133, shows that it was shorter than 122.

There is one other construction which may date from the Latin period, a cistern in f. IX due north of the east souterrain, No. 5 on Plan 1. It was roughly square on plan: the bottom was on L.58.1 ft., the well head on L.74 ft., the inlet on the north: the sides were rendered with pink cement laid over a coat of lime and ashes. It was the finest cistern we found on the site and may have been made to serve the house above the souterrain. Cistern 11 had served the needs of its Byzantine predecessor, the converted cisterns in 20, 21, 49, served the post-Latin occupants, and there is no other cistern nearby to serve the Crusaders, but we found no more definite evidence to fix the date of No. 5.

4. *Egyptian (plan 2)*

Early in this period the east souterrain was completely transmogrified.

16, 22, 45. These three rooms were built to the north-west: they were connected by doorways, and room 16 had bins built against the walls like some we had seen in f. X in rooms which though Byzantine in origin may have survived or been re-occupied later. To judge from their orientation, the walls of 22 and 45, which were of solid construction, were built, according to regular Palestinian practice, on older foundations, in this case Byzantine. The east wall of 16 was wholly new: it was carried down to the floors of rooms 15 and 17, passing through the doorway between them, and, sealed by it in the recess on the west side of 15, we found a number of ribbed sherds with a coarse yellow slip and some thirteenth-century glazed fragments. The house to which these rooms belonged was, therefore, probably built in the Ayyubid period, but it had a long life for there were two floors in 45 and two coins of Bahri Mamluks were found in 22.

Rooms 15 and 17 which had originally given access to the souterrain were thus destroyed and the quarrying above 13, best seen in Pl. X, 2, probably took place at this time. The remaining rooms in the souterrain were put to new uses:

20, 21, 49. These rooms were turned into cisterns. The wide doors leading into 20 and 21 were blocked : about 20 which is still in use we know nothing more : in 21 the floor was lowered about 6 ft. to L.48.8 ft. and a new opening was cut low down in the south wall to lead into 49 (Pl. XII), but about this room also our information is inadequate. In 49 greater changes were made : the floor was sunk still lower to L.46.6 ft., a new wall was built at the south end, the side walls were thickened, piers were added on each side to carry arches, the north wall grooved to receive the ends of the roofing slabs, and the sides coated with grey plaster : in other words, it was turned into a cistern of a type which has been traditional in these parts since the classical age.

19. The history of this room is more complicated. The most prominent feature on the floor is a large oval basin, excavated to a depth of about 3.5 ft. with a flat bottom and plastered sides as if to hold water : tongues extend from this to the doorways into 20 and 21, and it would appear therefore that it was connected with the conversion of these rooms into cisterns (Pl. XII), but the entrance to 21 was later raised again to the level, approximately, of the original sill and filled with good masonry : on this the blockage of the opening rested and an arch of largish white voussoirs was built above it : on the blockage and below the arch was a gutter connected with 49 in which we found a small glass vessel. From its style Dr. Mayer believes the arch to be earlier than the time of Beybars (1260-1277), that is, probably Ayyubid, in which case the basin as first planned had a short life. At the north end there are some of the usual tethering holes cut in the rock. At the south end a new entrance with some steps in front, visible in Pl. XI, 2, was made to take the place of the old entrance through 15 and 17, and, before the ground level had risen, some quarrying was done on the floor.

Somewhat similar changes were made in the region of the west souterrain. Two phases at least are represented :

113, 106. A solid pavement in two sections, 113 on L.52.6ft., 106 on L.53.3 ft., was laid above the rock floor of the Latin room 128. The paving stones were like those on the street and presumably came from it : a gutter which separated the two sections contained several fragments of marble which

may be relics of the Frankish house : between the pavement and the rock was a yellow deposit which produced no potsherds we could date later than Constantine, it was recognized at once as an imported filling brought from some older deposit, connected perhaps with cistern 107, to make a good bed for the paving stones. The deposit with its late Roman potsherds had overflowed into room 122 : on the floor of 131, on the other hand, some more thirteenth-century glazed sherds turned up. The levels are significant : the floor of the Latin room 128 under this paving was on L.50 ft., more than 3 ft. below the pavement in 106, but it was the floor of a subterranean room and, as there is no reason to suppose that the pavement also belonged to an underground room, we must suppose that the ground level of occupation was lowered by some feet.

130. The conversion of this room into a cistern which is still in use may have taken place at the same time. According to the owner, it had a single arch running from east to west, carrying white roof slabs like those seen elsewhere : he said also that it was about 7 m. deep and this, though it sounds improbable, may be true because its capacity would have been small unless it had been deepened, as with a single arch from east to west it cannot have measured more than 8 ft. from north to south and its extension east was limited by the old stepped vat.

115. Another cistern of the same type stretched under the footpath to the west (Pl. XIII, 2). It was built against the last fragment of the Hellenistic wall that we found.¹ It had two arches running from north to south, built partly of reused voussoirs with margins dressed like those in the souterrains and resembling the Ayyubid arch between 19 and 21.

A somewhat later phase is represented by a long wall running from north to south across the pavement 106-113 and some other buildings in line with it (plan 2) :

101, 102. Two rooms separated from the long wall by a narrow passage. Room 101 crossed the corner of cistern 115 which may have already gone out of use : a fragment of rough paving was preserved on the floor. It is impossible to say whether the east wall of these rooms was built for them or to support the earlier paving 106-113.

103, 105. Fragments of walls and more paving. The paving

¹ See *P.E.F.Q.S.*, 1929, 13 and Pl. II, and p. 158.

on L.52.1 ft. was only a few inches above the Byzantine mosaics in 110.

24. This was a long room built above the remains of the Byzantine street and orientated like the long wall and the other rooms connected with it. A coin of Muhammad b. Hajji (1361-1363) was found in this room.

5. *Turkish (plan 2)*

In the corresponding section in Part I three Turkish phases were distinguished : a modern phase to which the terrace walls and gardening sheds belong and two earlier stages which are represented by archaeological remains.

The refuse dumps in Zuallard's illustration are represented by a stratum of dark, closely packed soil which is visible all along the left side on Pl. VIII, 1. The most prominent remains on this plate are Byzantine, but there is a fragment of the Hellenistic wall below them and the wall on the right abutted on a Latin structure which was certainly occupied in the Egyptian period. These remains lie telescoped together beneath a dark stratum which is like the much thicker stratum found in the middle of the valley (*Ann.* V, 57 and Fig. 1) and equally barren of antiquities : this stratum represents the first Turkish phase.

The second phase appears on the same plate as a stony zone between this stratum and a thin belt of humus close to the surface. The stones come from a series of rooms shown on plan 2. The west walls of rooms 14, 37, 34, 30 in f. IX, like the wall west of 203 in f. XIII, follow the line of the footpath to the pool of Siloam which dates from before the time of Zuallard : along the west side of our fields the lowest stones in these walls were more than 9 ft. above the Byzantine floor level, the topmost within a foot or two of the surface : the east walls which are not parallel rest probably on older foundations. We have suggested that this phase may date from the eighteenth century. The latest occupation of room 19 in the east souterrain may belong to the same phase : after some five feet of debris had accumulated on the floor three narrow rooms or stalls, 50, 51, 52, were built at the south end and there was a corresponding line in the debris at the north end : two large stone vessels lay on the new floor but it could not be dated.



1.



2.

1. F.IX. ROOM 43 AND CISTERN 47, LOOKING NORTH. 5TH DECEMBER.

2. F.IX. THE STREET, WITH BYZANTINE MASONRY ON L., LOOKING SOUTH.
12TH. NOVEMBER.



2.



1.

1. F.JX. BYZANTINE LEVEL WEST OF STREET, 114 IN FOREGROUND WITH HELLENISTIC WALL BENEFATH, 42 AND 46 BEYOND, LOOKING NORTH.

2. F.XI. MOSAICS IN 110, LATE WALLS R., TERRACE BANK L., LOOKING WEST. 31ST OCTOBER.



1



2.

1. F.IX. ROOM 114, HELLENISTIC WALL IN FOREGROUND, LOOKING NORTH-WEST.
5TH DECEMBER.

2. F.XIII. MOSAIC FLOOR IN 202, LOOKING SOUTH-EAST. DECEMBER.



1.



2.

1. F.IX. LEFT TO RIGHT—STEPS IN 6, ARCHES INTO 11, TOP OF 13, 17 AND CORNER OF 19, LOOKING NORTH-EAST. 10TH OCTOBER.
2. F.IX. MIDDLE, BATH 13 WITH LATIN WALL ON STEPS: RIGHT, 17, LOOKING EAST. 21ST OCTOBER.



1.

1. F.IX. BATH 13 CLEARED, WITH 6 AND 11 BEYOND, LOOKING NORTH-EAST. 5TH NOVEMBER.



2.

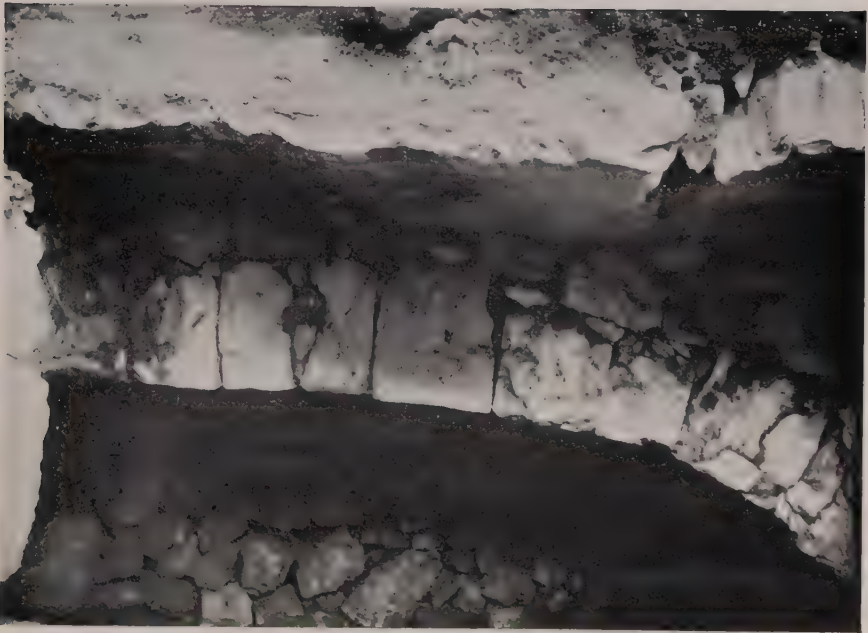
2. F.IX. SOUTH WALL OF 15, WEST END OF 17 WITH 19 BEYOND AND LATE ENTRANCE, LOOKING SOUTH. 1ST JANUARY, 1929.



F.IX. ON RIGHT, ROOM 19 WITH DOORS INTO 20, 17, 21 : ON LEFT, 49, LOOKING NORTH. DECEMBER.



1.



2.

1. F.IX. ROOM 17 WITH ROOM 15 ON RIGHT, LOOKING WEST, 21ST OCTOBER.

2. F.XI. ARCH ABOVE CISTERN 115, LOOKING WEST. 5TH NOVEMBER,



1.

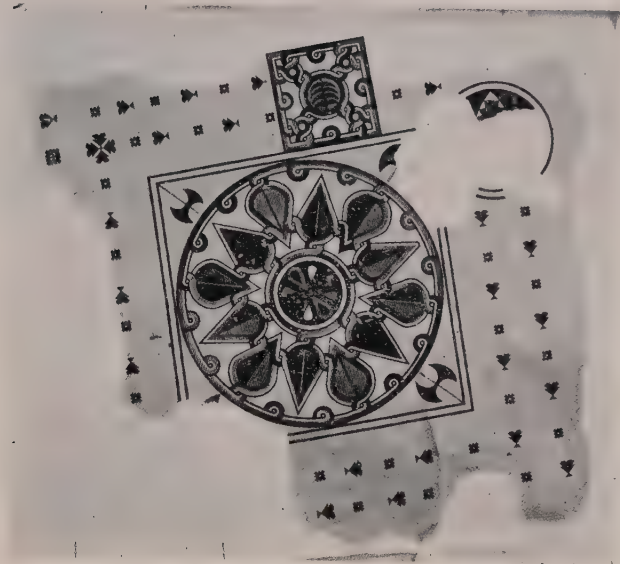


2.

1. F.XI. ROOM 128, WITH BLOCKED DOOR INTO 130 BEYOND OPEN DOOR, LOOKING SOUTH-EAST. 14TH NOVEMBER.
2. F.XI. ROOM 122, LOOKING WEST TOWARDS 128. 14TH NOVEMBER.



1.



2.

1. F.XI. ROOM 131, EAST SIDE WITH SPRINGERS IN PLACE,
LOOKING SOUTH-EAST. 20TH NOVEMBER.
2. F.XIII. MOSAIC FLOOR IN 202.



F.IX. INSCRIPTION OF COUNT EUGENIUS



- | | |
|---|---|
| A. A Mosque where once stood the Cornuculum. | I. The Fountaine of the blessed Virgin. |
| B. The Church of S. Sauionr, where stood the house of Caiphas. | K. The bridge that passeth ouer Cedron, with the rock that beares the impresson, as they say, of Christs footsteps. |
| C. Where the Iewes would haue taken away the body of the Virgin Mary from the Apostles. | L. The field of blood. |
| D. Where Peter wepts. | M. Where certaine of the Apostles hid themselves. |
| E. Port Esquelane. | N. The mountaine of Offence. |
| F. The poole and fountaine of Silo. | O. Where the house of Annas the high Priest stood. |
| G. Where the oke Rogell stood. | P. Where the Franks are buried. |
| H. The Church of the Purification of the blessed Virgin. | Q. Port Sion. |

VIEW OF OPHEL IN 1586, AFTER ZUALLARD.

REVIEWS AND NOTICES

Publications of the Studium Biblicum Franciscanum No. 1, *The Memorial of Moses on Mount Nebo*, Part I, *The Text* (pp. viii and 371, frontispiece and 37 illustrations), Part II, *The Plates* (Pl. 1-161), by Sylvester J. Saller, O.F.M., Jerusalem, 1941.

There are few more striking or memorable passages in the Old Testament than the few verses which tell how Moses was bidden to go up to view the Promised Land from a mountaintop in Moab, and there to die. The traditional scene of his death and burial, the Mountain of Abarim, with Nebo and Pisgah regarded as summits of a single chain, became a place of pilgrimage in the early Christian centuries, and the site of a monastic foundation. Modern travellers identified this with the ruins lying on a spur of the mountains of Moab, now known as Siyâgha, which commands a splendid view across the Jordan Valley. The Franciscan Fathers of the Custody of the Holy Land eventually acquired the site and, with the Biblical School of the same Order, carried out—obviously with great care and attention to detail—three very successful seasons of excavation between 1933 and 1937. They uncovered a large complex of monastic buildings (greater in area than the famous monastery of Sinai) including a basilica with a baptistry and two other chapels adjoining it. Below the apse and chancel of this church were the remains of an older triapsidal building. With commendably little delay, the results of the excavation (except the pottery finds, which are to have a separate monograph) have now been very completely published by Fr. Saller.

In forming his conclusions as to the chronology of the site the author has naturally taken into consideration the testimony of the pilgrims—Aetheria, c. 394 A.D., Peter the Iberian, in the fifth century, and Thietmar in 1217. The small church mentioned by Aetheria is found to have been a cella trichora, with straight outer walls and three interior apses. This "trefoil" plan, traditionally associated with memorial buildings, was well

known in Egypt and elsewhere, though apparently not in Palestine, before the fifth century. In order to account for the large church, recorded as having been visited by Peter the Iberian, about 477, Fr. Saller feels entitled to assume that in the fifth century the cella trichora was transformed by the addition of a nave and aisles, a view which is confirmed by the existence of an older mosaic floor below the one in the nave of the later basilica. Characteristics of masonry enabled the excavators to distinguish the debris that came from the cella, with marble fragments and remains of wall mosaics lying amongst carved stones, mouldings and engaged columns. The mosaic floor of the cella apparently continued in use in the sanctuary of the basilica, which seems to have been a less ornate building, having plastered walls and columns and a tiled roof. It was completed by A.D. 597—year 492 of the era of Bosra—as we learn from a mosaic inscription in the baptistery. The floor of another chapel, that of the Theotokos, is slightly later in date.

A point of interest in the basilica is a stone platform or monument, at the end of the south aisle, which Fr. Saller conjectures to be the "cenotaph" of Moses. Some such memorial in the older building seems to have been pointed out to Aetheria as marking the grave in which he was buried by the angels. The chancel screen shews signs of having been altered at some period from a low parapet to a colonnade; this form, tending to the later iconostasis, is found again in the Theotokos chapel. In the baptistery there is a font, 1.33 metres in diameter, carved out of a single block of stone and partly sunk below the floor.

The monastery buildings are mainly of the fifth and sixth centuries, though some cells may be earlier, and Fr. Saller believes they were inhabited until about the middle of the eighth century, basing his opinion on the presence of Umayyad coins and early Arab pottery and on certain repairs to mosaics defaced by iconoclasts. Archaeological evidence for any later occupation is of the scantiest, but we have the statement of Thietmar (A.D. 1217) that he visited Mount Abarim, where Moses died, and that on the summit there was a *pulchrum cenobium*, inhabited by Greek Christians. In J. C. M. Laurent's edition this reads as a plain statement of fact. It is conceivable

that Thietmar accepted some other site as being Mount Abarim, but one is inclined to suspect that Fr. Saller's poor opinion of his veracity (p. 347) may be due to the garbled version of his itinerary (*levissime conglutinatum et excerptum opus*, as Laurent calls it) found in several MSS, one of which has been published by T. Tobler.

In describing these discoveries and the numerous finds of small objects—stone, metal, glass and so forth—the author displays immense industry. He gives innumerable references to other publications, notably in the chapters on mosaics and inscriptions, where his familiarity with liturgical matters serves him well. Fr. Saller has thus produced a very valuable book, but it must be confessed that it is somewhat too long; a careful revision might well have shortened it by eliminating repetitions and by correcting a certain diffuseness of style.

A few passages are open to criticism on other grounds. Thus, in connection with the stone slabs covering certain tombs below the church, we find (pp. 37 sq.) some very unguarded *obiter dicta* concerning the obscure Greek word *pellaïkon*.

Fr. Saller makes the interesting suggestion that a panel from the sanctuary of the Theotokos chapel (reproduced in colour as a frontispiece to Part I) was intended to represent the Temple in Jerusalem. It seems to depict a building, before which a fire is burning, within an enclosure flanked by two bulls; the inscription over them (from the last verse of Ps. l (li.) *Miserere*) is clearly a reference to the sacrifice of the Old Laws. But it is surely very far-fetched to suggest that the designer of this mosaic may have been familiar with the text of the stele of Mesa, king of Moab in the ninth century B.C. Furthermore the assertion (p. 237, footnote) that Mesa took away from Nebo "the altar-hearths of Yahweh" is too absolute; it involves an uncertain restoration of the text where the stone is broken as well as the doubtful rendering of a word corresponding to the biblical "Ariel."

Although the pottery still awaits full publication, the illustrations, in Pl. 144–158, and incidental references in the text indicate that it is, generally speaking, of the Byzantine and early Arab periods. A short chapter is devoted to the clay lamps; these are practically all of the "slipper" type, includ-

ing both the " candlestick " and the " channel-nozzle " variety, always considered characteristic of the sixth and seventh century respectively. But since the publication by Mr. Iliffe of a tomb at El-Bassa (*Q.D.A.P.* III, 1934, p. 84) which contained both these varieties together with late fourth-century coins, the opinion has been promulgated that these lamps were in use during the fourth century. In view of the early occupation of Siyâgha. Fr. Saller is, naturally enough, well disposed to this theory, but we believe that excavators will be very ill-advised to accept it without more convincing evidence than has yet been produced. They should be particularly on their guard against using " slipper " lamps alone in order to ascribe fourth-century date to tombs in which no coins are found. We need not suppose that any scruples existed to prevent the placing of a hoard of old coins in a tomb, as may have happened at El-Bassa; moreover, the coinage of the successors of Arcadius is so surprisingly rare in Palestine (and at Siyâgha there is only one doubtful example) that we must conclude that his types remained in currency till superseded by the typical Byzantine coins at the end of the fifth century.

On p. 136 a coin of the first year of Justin II (565-6) is said to have been found under debris from the cella trichora and so to indicate a *terminus post quem* for its destruction, although on p. 45 a coin of his twelfth year has been described in the same terms, with reference, apparently, to no. 57 in the coin list on p. 283. By another trifling oversight the latest coin in Hall 56 of the monastery is said, on p. 160, to be one of Maurice Tiberius, though the coin list gives one of Phocas (No. 64). On p. 212 the footnote referring to *Gerasa* should read " pp. 305f." There is a very full index, which, however, includes a number of doublets without cross-references (Fasga—Phasga—Pisgah, Nabau—Nebo, Reuben—Ruben, Thetmar—Thietmar) and is somewhat overloaded with entries that refer only to words occurring casually in the text.

In conclusion we would emphasize that the points to which exception can be taken are few and insignificant in relation to the scope of Fr. Saller's work. He has succeeded in his aim of providing a worthy record, amply documented and illustrated, of an important site. For this and for the careful and systematic work of the excavators all thanks are due. The Studium

Biblicum Franciscanum has made an excellent beginning with the publication of these volumes.

G. M. FITZGERALD.

The Committee have to acknowledge with thanks the following :

- The Antiquaries Journal*, January-April, 1945.
Bible Lands, January-July, 1945.
Expository Times, LVI, 7-12.
Life Between Death and Resurrection according to Islam. By Ragnar Eklund, Uppsala, 1941.
Religions, October, July, 1945.
Scottish Geographical Magazine, April, 1945.
Journal of the Royal Society of Antiquaries of Ireland, LXXV, Parts I and II.
The Biblical Archaeologist, February and May, 1945.
Journal of Egyptian Archaeology, Vol. 30, December, 1944.
Journal of Near Eastern Studies, Vol. IV, 2 and 3.
Harvard Theological Review, April, 1945.
Jewish Quarterly Review, XXXV, 4.
American Journal of Archaeology, October-December, 1944, January-March, and July, 1945.
American Journal of Philology, January, 1945.
 NEA ΣΙΩΝ, 1945.
Kedem. Studies in Jewish Archaeology, II.
Meteorological Conditions in Caves and Ancient Tombs in Egypt. By L. J. Sutton. Physical Department Paper, No. 50, Public Works Ministry, Egypt.
The African Collections of the University Museum, Philadelphia. By A. H. Wieschoff. Museum Bulletin, Vol. II, Nos. 1-2.
Associations of Cult Prophets among the Ancient Semites. By Alfred Horder.



PALESTINE EXPLORATION FUND

ANNUAL REPORT

AND ACCOUNTS

WITH

LIST OF SUBSCRIPTIONS

FOR THE YEAR 1945

PALESTINE EXPLORATION FUND
2 HINDE STREET, MANCHESTER SQUARE, LONDON, W.1

THE PALESTINE EXPLORATION FUND

SOCIETY FOR THE ACCURATE AND SYSTEMATIC INVESTIGATION OF THE ARCHAEOLOGY, THE TOPOGRAPHY, THE GEOLOGY AND PHYSICAL GEOGRAPHY, THE MANNERS AND CUSTOMS OF THE HOLY LAND, FOR BIBLICAL ILLUSTRATION.

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VICE-PRESIDENT—HIS GRACE THE ARCHBISHOP OF YORK.

The Society was established on the basis of the following rules :—

1. It was not to be a religious society. That is to say, it should be pledged not to advocate or attack any form of creed or doctrine.
2. It was not to adopt or to defend any side in controversial matters.
3. It was to be conducted on strictly scientific principles.

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PALESTINE EXPLORATION FUND

ANNUAL REPORT FOR THE YEAR 1945

THE Committee has the pleasure of reporting that His Grace the Lord Archbishop of Canterbury has been graciously pleased to accept the office of President of the Fund which has been held by so many of his distinguished predecessors.

With the conclusion of the war the Committee looks forward to a resumption and even to an expansion of its former activities, but in the present situation the process must inevitably be gradual. Some steps have already been taken, others are contemplated.

We have to record with deep regret the retirement of our Chairman, Colonel Sir Charles Arden-Close. From the very beginning the relations of the Palestine Exploration Fund with the Royal Engineers have been peculiarly intimate and happy, and Sir Charles has nobly maintained a tradition founded by such distinguished officers as Sir Charles Wilson and Sir Charles Warren, Sir Charles Watson and Lord Kitchener. For fifteen years Sir Charles Arden-Close has been Chairman of the Fund and during this period he has been primarily responsible for the reconstruction of its London offices on a worthier scale, and for the new format of recent publications. We are glad to add that Sir Charles has consented to remain a member of the Committee and we shall not therefore be wholly deprived of the benefit of his counsel.

The Office, the Museum and the Library of the Fund were re-opened at 2, Hinde Street last September and the collections which had been stored and, in some instances, removed into the country for safe keeping during the war are now back again in their old cases. The Library, which has unavoidably fallen into arrears in the last few years, has been engaging the special attention of Mr. G. M. FitzGerald and several of the worst gaps have been already filled; but until conditions in the binding trade improve much that is urgent will have to be postponed. The fabric of the building happily suffered only minor damage from enemy attacks on the neighbourhood.

Reference was made in the last Annual Report to the meetings of representatives of societies interested in the archaeology of the Near East and the Mediterranean area, to discuss the future of archaeological researches in those regions. A statement dealing with the protection of monuments and antiquities and with the need for financial support from Government was submitted to the Joint Archaeological Committee. This Committee endorsed the recommendations in the statement and put forward detailed proposals for subventions to the existing schools in Athens, Rome, Jerusalem and Iraq and for an institute in Egypt. The Fund is, of course, particularly interested in the future of the school in Jerusalem which has in fact been responsible for all the field work sponsored by the Fund in Palestine during the last twenty years, and members will be sorry to learn that Government is unable to undertake any commitments at present in this respect. While there is no reason to despair of a more favourable response in the future, we cannot, in the circumstances, do more during the coming year than we are now doing. Major G. E. Kirk, whose name will be familiar to readers of recent numbers of the *Quarterly*, is now in Jerusalem combining with other duties those of Acting Director of the British School, and he is keeping us in touch with archaeological conditions there.

As will be seen from the statement of accounts appended to this Report the Fund has passed through the recent War with a financial position that must be considered satisfactory. This has however been made possible only by rigid economies in all directions. In the new era that is opening, if the customary activities of the Fund are to be resumed, most, if not all, of these economies will have to be abandoned and the balance between income and expenditure will, unless new sources of revenue are found, be upset. It will be seen that the total income from members in the form of subscriptions and donations is only £431. This is almost absurdly inadequate when the worldwide interest that the work of the Fund should arouse is considered.

It is hoped that before long it may be possible to issue four numbers of the *Palestine Exploration Quarterly* a year instead of the two numbers to which we have been reduced by war conditions. Two other publications in hand are the third volume of the report of the excavations at Samaria (which will contain an account of the smaller finds made, the pottery, coins, inscriptions and other objects), and a volume of a more popular character about the new light which has been thrown on Palestinian civilization by the discoveries of the last twenty years or so.

Signed on behalf of the
Executive Committee,
April, 1946.

J. W. CROWFOOT, *Chairman.*
C. B. MORTLOCK, *Hon. Secretary.*

PALESTINE EXPLORATION FUND, 1945

BALANCE SHEET, 31st DECEMBER, 1945

LIABILITIES.

	£	s.	d.	£	s.	d.
CAPITAL :—						
<i>Authorized</i> —200 Shares of £1 each	200	0	0			
<i>Issued</i> —10 Shares of £1 each, not called						—
SUNDRY CREDITORS for Current Expenses				145	1	7
ARCHAEOLOGICAL SURVEY OF PALESTINE				31	6	8
SURPLUS OF ASSETS OVER LIABILITIES—						
(Excluding donated property) as per last Balance Sheet ..	2,997	7	9			
Add : Excess of Income over Expenditure for year* ..	258	2	4			
				3,255	10	1
				£3,431	18	4

ASSETS.

	£	s.	d.
FREEHOLD PROPERTY—DONATED—No. 2 Hinde Street (estimated value £5,000) ..			—
ALTERATIONS AND IMPROVEMENTS No 2 Hinde Street, as per last Balance Sheet ..	1,188	17	5
MUSEUM, LIBRARY AND STORE-ROOM: FIXTURES, FITTINGS, FURNITURE, etc., as per last Balance Sheet	382	2	7
JEWISH COLONIAL TRUST—DONATED—50 Ordinary Shares of £1 each, fully paid ..			—
STOCK OF PUBLICATIONS, MAPS, BOOKS, MODELS, LANTERN SLIDES, LIBRARY, ANTIQUES, etc.			—
SUNDRY DEBTORS	51	7	2
SUBSCRIPTIONS IN ARREAR	33	12	0
£1,000 3-per cent. Defence Bonds	1,000	0	0
£50 3-per cent. Savings Bonds, 1955-65 P.O. Issue	50	0	0
CASH AT BANK AND IN HAND*	725	19	2
	£3,431	18	4

* *Note.* Includes £25 donated in 1939, and not yet expended, for the purchase of Committee Table in memory of the late H. Coote Lake, Esq.

J. W. CROWFOOT, *Chairman.*

A. M. HYAMSON, *Hon. Treasurer.*

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st DECEMBER, 1945

		RECEIPTS.		£	s.	d.	£	s.	d.
To	Balance 31st December, 1944	..	..	..	..	..	744	7	11
"	Subscriptions and Donations, including Local Societies	..	..	..	..	..	431	0	9
"	Refund of Income Tax on Covenanted Subscriptions	..	..	..	..	..	74	1	0
"	Sale of Publications	..	..	..	..	..	61	5	3
"	Rent	..	..	..	..	..	353	11	5
"	Dividend on £1,000—3 per cent. Defence Bonds	..	..	25	7	9			
"	Dividend on £50—3 per cent. Savings Bonds	..	..	1	10	0			
							-26	17	9
							£1,691	4	1
							£	s.	d.
Receipts for year, as shown above							946	16	2
Less: Arrears of last year's subscriptions, etc., received during 1944							70	14	8
							876	1	6
Add: Arrears and Debtors at 31st December, 1945, as shown by Balance Sheet							84	19	2
							£961	0	8

		PAYMENTS.		£	s.	d.	£	s.	d.
By	Printing, including Quarterly, Annual Report, Postages and Despatch	..	..	..	..	..	233	15	10
"	Editor's fee	..	..	..	..	..	50	0	0
"	Purchase of books and bookbinding	..	..	..	..	..	5	15	9
"	Repairs	..	..	..	..	..	3	14	6
"	Salaries and Wages (including National Insurance)	..	..	..	..	..	303	19	9
"	Postages and Telephone	..	..	..	..	..	16	17	7
"	Fire Insurance	..	..	..	..	..	7	5	9
"	Water Rate, etc.	..	..	..	..	..	15	16	0
"	Lighting and Heating	..	..	..	..	..	5	18	10
"	Stationery and Sundries	..	..	..	..	..	5	14	9
"	Audit Fee	..	..	..	..	..	5	5	0
"	War Damage Contribution	..	..	..	..	..	11	1	2
							£665	4	11
, Purchase of £300—3 per cent Defence Bonds							300	0	0
Balance at 31st December, 1945:							725	19	2
At Bank and in hand							£1,691	4	1
Payments for year, as shown above							665	4	11
Less: Creditors at 31st December, 1944, paid during 1945							107	8	2
							557	16	9
Add: Creditors at 31st December, 1945, as shown by Balance Sheet							145	1	7
							702	18	4
Excess of Income over Expenditure							258	2	4
							£961	0	8

AUDITOR'S REPORT TO THE MEMBERS OF THE PALESTINE EXPLORATION FUND.

We report that we have obtained all the information and explanations we have required as Auditors. We have examined and compared the above Balance Sheet and the Receipts and Payments Account with the books and vouchers of the Fund, and, in our opinion, they are properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Fund, according to the best of our information and the explanations given to us and as shewn by the books of the Fund.

19 COLEMAN STREET,
LONDON, E.C.2.
22 MAY, 1946.

TURQUAND, YOUNGS, MCAULIFFE & CO.
Chartered Accountants.

LIST OF SUBSCRIPTIONS AND DONATIONS

RECEIVED BETWEEN 1ST JANUARY AND 31ST DECEMBER, 1945, INCLUSIVE

* Asterisks denote covenanted subscriptions

If any omission or mistake be observed in the following lists, the Secretary will be very glad to be informed of it, and will rectify the error in the next Annual Report.

	£	s.	d.		£	s.	d.		£	s.	d.
Adler, E. N., Esq. . .	0	10	6	Brought forward	93	12	6	Brought forward	168	2	4
* Alford, Miss M. . .	2	2	0	* Gardiner, Dr. A. H. . .	2	2	0	Brooklyn Inst. of Arts			
* Arden-Close, Sir Charles	2	2	0	* Garner, Rev. H. . .	1	1	0	and Sciences . .	1	1	0
Ashmole, Prof. B. . .	1	1	0	* Garnett, Rev. T. A. . .	1	1	0	Bucknell Library . .	1	1	0
Balston, Miss F. C. . .				* Garstang, Prof. J. . .	2	2	0	Butler University . .	2	2	0
(Don.) . .	5	0	0	Gibson, Mrs. . .	2	2	0	California University	1	1	0
* Barham, S. P., Esq. . .	1	1	0	* Glancy, L. M., Esq. . .	1	1	0	Cambridge University			
* Barnett, Mrs. H. A. Lake	2	2	0	Goadby, Dr. F. M. . .	1	1	0	Museum . .	5	0	0
* Barnett, R. D., Esq. . .	1	1	0	Gold, Mrs. . .	1	1	0	Carnegie Library,			
Barron, Mrs. . .	1	1	0	* Goodenough, Admiral				Pittsburg . .	1	1	0
Bate, Miss D. M. . .	1	1	0	Sir W. . .	1	1	0	Case Memorial Library	4	4	0
* Bayley, Arthur R., Esq.	2	2	0	Gurney, Oliver, Esq. . .	1	1	0	Church House, West-			
Becke, Major A. F. . .	1	1	0	Haddick, Rev. J. E. K. . .	1	1	0	minster . .	1	1	0
Belmore, The Earl of . .	1	1	0	Hammond, Col. F. S. . .	2	2	0	Colgate Rochester			
* Bentwich, Prof. N. . .	1	1	0	Harford, Mrs. . .	1	1	0	Divinity School . .	1	1	0
* Berlin, M., Esq. . .	1	1	0	* Haycraft, Lady . .	1	1	0	Columbia University	1	1	0
Bilton, F., Esq. . .	1	1	0	Hayman, Miss B. M. . .	1	1	0	Cone Memorial			
Birnbaum, Dr. S. . .	1	1	0	Hertz, the Very Rev. J. H. . .	1	1	0	Y.M.C.A. . .	1	0	3
Blair, Dr. D. P. . .	1	1	0	* Hindley, Miss R. C. . .	1	1	0	Congregational Library,			
Blyth, Miss Estelle . .	1	1	0	Hindley, R. T., Esq. . .	1	1	0	Boston . .	2	2	0
* Boulton, W. H., Esq. . .	1	1	0	* Hippisley, Miss E. . .	1	1	0	Cornell University . .	1	1	0
Bramwell, W., Esq. . .	1	1	0	Hollis, Miss E. . .	1	1	0	Davidson College . .	1	1	0
Brown, James, Esq. . .	2	2	0	* Hollis, Rev. Dr. F. J. . .	1	1	0	Detroit Public Library	1	1	0
* Bushell, W. F., Esq. . .	1	1	0	* Hooke, Prof. S. H. . .	1	1	0	Duke University . .	1	1	0
Bussby, Rev. F. . .	1	1	0	Horn, Dr. Paul . .	1	1	0	Durham University . .	2	2	0
Buxton, Dr. P. A. . .	1	1	0	Hutchinson, Rev. J. D. . .	1	1	0	Eastern Baptist Theol.			
* Caiger, Rev. Esq. . .	1	1	0	* Hyamson, A. M., Esq. . .	1	1	0	Seminary . .	1	1	0
Canton, V., Esq. . .	1	1	0	Idien, Miss E. J. . .	1	1	0	Edinburgh Free Ch.			
* Carter, John, Esq. . .	2	2	0	* Johnson, Rev. Lewis . .	1	1	0	Coll. . .	6	6	6
Catterson, S. M., Esq. . .	2	2	0	Johnston, Dr. T. . .	10	0		Edinburgh University	4	4	0
Caullie, Lt.-Col. A. G. . .	1	1	0	* Kenyon, Miss K. M. . .	1	1	0	Garrett Biblical			
Cerny, Rev. E. A. . .	2	2	0	Kiewe, H. E., Esq. . .	1	1	0	Institute . .	3	13	4
Chalmers-Hunt, Dr. R.,				Kirk, Major G. E. . .	1	1	0	Haifa Art Society . .	1	1	0
Esq. . .	1	1	0	Kirkness, W. E., Esq. . .	4	4	0	Harvard College . .	1	1	0
* Clarke, Col. N. P. . .	1	1	0	Laird, Rev. E. E. . .	1	4	8	Haverford College . .	1	1	0
Commissariat of the				* La Page, John, Esq. . .	1	1	0	Heythrop College . .	0	10	6
Holy Land . .	5	5	0	Lee, Rev. E. J. . .	0	10	6	Illinois University . .	1	1	0
Crawford, L., Esq. . .	1	1	0	Lee of Fareham, Viscount	1	1	0	Institut de France . .	5	5	0
Crawford, O. G. S., Esq.	1	1	0	* Lees, G. M., Esq. . .	1	1	0	Istanbul University	1	1	0
* Crowfoot, J. W., Esq. . .	1	1	0	Libraries—				Jewish Institute of			
Curwen, B. H., Esq. . .	2	2	0	Aberdeen University . .	1	1	0	Religion . .	2	1	0
Curwen, Dr. E. Cecil . .	1	1	0	Adelaide Public Library	4	4	0	Jewish Theol. Seminary	1	1	0
Curwen, Dr. Eliot . .	2	2	0	Allegheny College . .	1	1	0	Jews College . .	0	10	6
* Daiches, Dr. S. . .	1	1	0	Alleyns School . .	1	11	6	John Rylands Library	1	1	0
* Davies, Miss A. M. . .	1	1	0	Alma College . .	1	1	0	Leeds Library . .	1	1	0
Diringer, Dr. D. . .	1	1	0	American Philosophical				Leeds University . .	1	1	0
Dirk, Pons & Co., Messrs.	1	1	0	Society . .	1	1	0	London University . .	1	1	0
* Driver, G. R., Esq. . .	2	2	0	American University				Los Angeles Public			
Du Boulay, Brig.-Gen.				Beirut . .	1	1	0	Library . .	1	1	0
W. H. . .	1	1	0	Amherst College . .	1	1	0	Lund University . .	0	6	0
Dugmore, Rev. C. W. . .	2	2	0	Armagh Library . .	1	1	0	McMaster University	1	1	0
Dulau, Rev. P. . .	3	3	0	Ashland College . .	1	1	0	Manchester Univer-			
* Edwards, Rev. A. H. . .	1	1	0	Ashmolean Museum . .	1	1	0	sity . .	1	1	0
Evans, E. M. P., Esq. . .	1	1	0	Bangor Theol. Semin-				Mansfield Coll., Oxon.	1	1	0
Falconer, Harold, Esq. . .	1	1	0	ary . .	0	16	8	Mary Baldwin College	1	1	0
Fink, R., Esq. . .	1	1	0	Bangor University . .	2	2	0	Metropolitan Museum			
* Finn, Miss C. M. . .	1	1	0	Berkeley Baptist . .				of Art . .	1	1	0
* FitzGerald, G. M., Esq. . .	2	2	0	Divinity School . .	1	1	0	Montreal, Divinity			
Fleming, Andrew, Esq. . .	2	2	0	Bibliothèque Nationale	5	5	0	Coll. . .	1	2	0
Fothergill, Dr. C. . .	1	1	0	Birmingham Public				Mount Hoylelake Coll.	1	1	0
* Frank, Miss Helena . .	2	0	0	Libraries . .	1	1	0	New College, London	1	1	0
Fraser, C. J., Esq. . .	4	4	0	Boston Public Library				New York Public			
Freshfield, the Misses . .	1	1	0	Bradford City Library	0	10	6	Library . .	1	1	0
Fuller, Rev. R. C. . .	1	1	0	Bristol Libraries . .	1	1	0	Newbury Library . .	2	1	0
* Gailitis, Miss L. . .	1	1	0	British Columbia,				Northwestern Univer-			
Gamble, Rev. H. J. . .	1	1	0	Union College of . .	1	1	0	sity . .	1	1	0
Carried forward	£93	12	6	Carried forward	£168	2	4	Carried forward	£250	4	5

LIST OF SUBSCRIPTIONS

	£	s.	d.
Brought forward	250	4	5
Oberlin College	1	1	0
Ottawa, Parliament Library	1	1	0
Pacific School of Religion	1	1	0
Peabody Institute	1	1	0
Pretoria University	0	12	6
Princeton Theological Seminary	2	8	6
Queen's University, Kingston, Ont.	2	2	0
Royal Asiatic Society	1	1	0
St. Andrews Coll., Newtown, N.S.W.	1	1	0
St. Andrews University	2	2	0
St. Augustine's College, Canterbury	1	1	0
St. Deniol's Library	1	10	0
St. Louis Public Library	1	1	0
St. Mary's Coll., Kansas	2	2	0
St. Patrick's College	1	11	6
Selly Oak Colleges	2	2	0
Seventh Day Adventist Seminary	1	1	0
Smith College	1	1	0
Sorbonne University	5	5	0
So. African Public Library	1	1	0
Spence Library	1	1	0
Strassbourg University	5	5	0
Sydney Public Library	1	1	0
Tel Aviv, Hebrew Gymnasium	2	2	0
Toronto, Victoria University	1	1	0
Union Theological Seminary	1	1	0
U.S.S.R. (per Wm. Dawson Ltd.)	1	1	0
Vanderbilt University	1	1	0
Victoria Institute, The Walla Walla College	1	1	0
Wellesley College	1	1	0
Western Theol. Seminary	1	1	0
Westminster Theol. Seminary	1	1	0
Weston-super-Mare Library	1	1	0
Dr. Williams Library	2	2	0
Winnipeg Theological College	1	1	0
Wisconsin University	1	1	0
Yale University	1	1	0
Zion Research Library	1	1	0
Llewellyn, Mrs.	3	3	0
*London, S., Esq.	2	2	0
Lucas, A., Esq.	1	1	0
Macalister, Prof. R. A. S.	1	1	0
McClellan, Rev. W. H.	1	4	3
McLean, Dr. C. F.	1	1	0
Mansfield, T. C., Esq.	1	1	0
Carried forward	£319	10	2

	£	s.	d.
Brought forward	319	10	2
*Martin, Henry, Esq.	1	1	0
Matthew, H. M., Esq.	1	1	0
Mitchell, Mrs. J. Malcolm	2	2	0
Mongredien, Rev. H. G.	2	2	0
Morrill, C., Esq.	0	10	6
*Morris, Rev. W. R.	1	1	0
*Mortlock, Rev. C. B.	1	1	0
Moysey, C. F., Esq.	1	1	0
Neufeld, Dr. E.	2	2	0
*Newcombe, Col. S. F.	1	1	0
*Noel, Mrs. Ernest	1	1	0
Norris, Capt. C. T.	1	1	0
Norwich, The Dean of	1	1	0
*Oesterley, Rev. Dr. W. O. E.	1	1	0
Parkminster, Rev. Prior of	1	1	0
Parrott, Dr. H. Winnock	1	1	0
Peake, Col. F. G.	1	1	0
Pearce, H. W., Esq.	1	1	0
Pirie-Gordon, H., Esq.	2	2	0
Plumley, Rev. J. M.	1	1	0
Probsthain, A., Esq.	4	4	0
Richards, Miss K. D.	2	3	5
Richmond-Brown, R., Esq.	1	1	0
*Robertson, Prof. E.	1	1	0
Rosenthal, H., Esq.	1	1	0
*Roth, Dr. Cecil	1	1	0
*Rowley, Rev. H. H.	1	1	0
*Salaman, Dr. R. N.	1	1	0
*Salmon, Col. F. J.	1	1	0
Sarna, Nahum Esq.	1	1	0
*Schubeler, Mrs.	1	1	0
*Shepstone, H. J., Esq.	1	1	0
Slinkard, St. Elmo C., Esq.	1	1	0
*Sloan, Mrs.	1	1	0
Smith, Bishop M. Linton	1	1	0
*Staplyton, Alan, Esq.	1	1	0
Stewart, James R., Esq.	1	1	0
*Terrill, F., Esq.	1	1	0
Tervit, Adam, Esq.	1	1	0
Thompson, H. A., Esq.	6	6	0
Toeman, J., Esq.	1	1	0
*Truro, The Bishop of	2	2	0
*Tufnell, Miss O.	1	1	0
Waechter, John, Esq.	2	2	0
*Walsh, A. St. G., Esq.	1	1	0
*Walter, Miss C.	2	2	0
Warde-Aldam, Col. W. St. A.	1	1	0
Wartski, Morris, Esq.	1	1	0
Watson, Mrs. E. Gordon	1	1	0
Weingreen, J., Esq.	2	2	0
Were, Miss	0	5	0
Westminster, The Dean of	1	1	0
*Weston, Rev. F. G.	1	1	0
*Wilson, Dr. T. Stacey	3	3	0
Winterbotham, A., Esq.	1	1	0
*Wylie, R. W., Esq.	1	1	0
Carried forward	£397	0	1

EDINBURGH

Hon. Local Sec.

Prof. N. Porteous

	£	s.	d.
Bonar, Mrs.	1	1	0
Edinburgh Public Library	1	1	0
Kennedy, Prof. A. C.	0	10	6
New College Library	1	1	0
*Porteous, Prof. N.	1	1	2
	£4	14	8

GLASGOW

Hon. Local Sec.

Rev. John Mauchline

Hon. Local Treasurer.

W. Patrick Mitchell, Esq.

	£	s.	d.
Blair, Archibald, Esq.	1	1	0
Rev. Dr. D. Forrester	1	1	0
Macay, Lord	1	1	0
Mauchline, Prof. J.	1	1	0
Mitchell, Sir George	1	1	0
Mitchell Library	1	1	0
Mitchell, W. Patrick, Esq.	1	1	0
Pettigrew, Miss	1	1	0
*Stevenson, Rev. Prof. W. B.	1	1	0
Trinity College	1	1	0
Weir, Rev. Prof. C. J.	1	1	0
	£11	11	0

PALESTINE

Hon. Local Sec.

C. N. Johns, Esq.

	£	s.	d.
Harding, G. L., Esq.	2	2	0
*Hulbert, Miss E.	1	1	0
Iliffe, J. H., Esq.	1	1	0
McInnes, Mrs.	1	1	0
Mayer, Dr. L. H.	2	2	0
Newman Sch. of Missions	1	1	0
Pontifical Biblical Institute	1	1	0
Reifenberg, Dr. A.	1	1	0
Roth, Leon, Esq.	2	2	0
Sonnen, Rev. Fr.	2	2	0
Stewart, Rt. Rev. Bishop W. N.	1	1	0
Torczyner, Prof. H.	2	2	0
	£17	15	0

SUMMARY OF SUBSCRIPTIONS AND DONATIONS

	£	s.	d.
General List	397	0	1
Edinburgh	4	14	8
Glasgow	11	11	0
Palestine	17	15	0
	£431	0	9

247

Palestine exploration
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45

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